TRANSCRIPT OF RECORD

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1955

No. 51

FEDERAL POWER COMMISSION, PETITIONER

vs.

SIERRA PACIFIC POWER COMPANY

No. 53

PACIFIC GAS AND ELECTRIC COMPANY, PETITIONER

vs.

SIERRA PACIFIC POWER COMPANY

ON WRITS OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

NO. 51—PETITION FOR CERTIORARI FILED APRIL 29, 1955.

NO. 53—PETITION FOR CERTIORARI FILED APRIL 29, 1955.

CERTIORARI GRANTED MAY 23, 1955

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[4]

BEFORE THE

FEDERAL POWER COMMISSION

In the Matter of:

PACIFIC GAS AND ELECTRIC COMPANY, } Docket No. E-6482

Hearing Room,
Federal Power Commission,
Hurley-Wright Building
1800 Pennsylvania Avenue N. W.
Washington, D. C.,
Tuesday, April 21, 1953

The above-entitled matter came on for hearing, pursuant to recess, at 10 o'clock a.m.

Before—MARVIN FARRINGTON, Presiding Examiner.

APPEARANCES:

ROBERT H. GERDES, RALPH W. DUVAL and FREDERICK T. SEARLS, 245 Market Street, San Francisco, California and ROBERT E. MAY of Wheat May and Shannon, Shoreham Building, Washington, D. C. appearing on behalf of Pacific Gas and Electric Company.

Throughout this Joint Appendix at those places where the Record page reference is not printed at the precise place at which one page of the Certified Transcript of Record ends and at which the next Record page begins, the symbol // is used to indicate this precise place.

WILLIAM C. CHANLER, ELLIOTT E. VOSE and GERARD THOMAS of Winthrop, Stimson, Putnam and Roberts, 40 Wall Street, New York, New York, on behalf of Sierra Pacific Power Company.

HOWARD E. WAHRENBROCK and DREXEL D. JOURNEY, appearing on behalf of the Staff of the Federal Power Commission.

Staff Counsel's Technical Aids and Consultants:

STANLEY ROLAND
WILLIAM DRESCHER
EDWARD MCMANUS

* * * * *

[189]

JAMES F. POLLARD was called as a witness and, having been first duly sworn, was examined and testified as follows:

Direct Examination

By Mr. Searls:

Q. Will you state your name? A. James F. Pollard.

Q. By whom are you employed? A. Pacific Gas and Electric Company.

* * * * *

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The Witness: I have it here. You want a comparison between the charges as set forth in Schedule R and those in Supplement No. 1 to FPC No. 3?

[653]

Q. Now I call your attention to Exhibit 21, in the Bureau of Reclamation file. Beginning at page 11 to page 25 there is a form of contract. Refreshing your recollection from that will you state whether, at about the time or after your meeting of October 25 and the receipt of this draft of contract from Pacific Gas & Electric on December 17, you had any further discussions with members of your staff regarding the Bureau's proposals and what the substance of those discussions was? A. I believe that that was the period when I asked Mr. Devore to make use of his load studies and project Bureau costs on them.

[654]

Q. What significance has this document entitled "Contract for electric service with Colorado River Commission of Nevada, Preliminary draft, October 21, 1947" which is in this record. Has that any bearing on the subject matter? A. I call your attention to the date October 21, 1947. Was that ever shown to you about that time by anybody? A. Mr. Devore showed that to me about that time, yes, sir.

Q. Did you give him any instructions to do anything about it. A. I told him to project the costs on the load studies that he had previously made.

Q. That is to say you asked him to project the cost to Sierra of purchasing power under the proposal embodied in that contract, in the light of the load study which he had previously made. Is that right? A. That is right.

Q. Did he make such a study during this period? A. He did so.

Q. After you received the draft contract, the first contract with Pacific Gas & Electric, which was received on

Presiding Examiner: May I suggest, Mr. Pollard, that you say whether they are substantially the same. If not, then give the differences.

The Witness: They are substantially the same.

* * * * *

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Redirect Examination

* * * * *

[565]

By Mr. Searls:

Q. I would like to ask you, Mr. Pollard, if this Exhibit 20 is the P-31 Schedule that was in effect during all of the year 1948? A. Yes, it was.

Q. I note some figures written into the right of the demand charge schedule. They seem to be written in by hand and I would ask you if they are part of the schedule as filed with the State of California Public Utilities Commission? A. No, they are not. Apparently we sent back for this schedule after we arrived here in Washington and they had the schedule photostated, and apparently somebody on the original that they had it photostated from, had calculated the extension of the items in the schedule itself.

For instance, 50 kilowatts at $75, and $75 appears in both columns. Then the next, 150 at $1.50 would be 225 and the accumulation would be 300.

So you see that is undoubtedly the reason those figures

December 17, and which also contained the basic rate proposals that Pacific Gas & Electric was advancing, did you

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ask Mr. Devore to make any study based upon that? // A. I did. I asked him to project those costs into his load study and compare them with those already placed there covering the Reclamation Bureau contract through the Colorado River Commission.

[656]

Q. Did Mr. Devore make such a study and did he make any recommendation in connection with it? A. He made the study and told me that while the average rate of the 15-year period showed that the Reclamation Bureau on power would be somewhat in the neighborhood of half a mill less than the average cost under the Pacific Gas and Electric Company proposed rate, that there were other factors that overbalanced the difference in rate and those factors were that Pacific Gas and Electric's service was naturally a better service over three transmission lines than service would be over a single line, and that the Pacific Gas and Electric Company could construct their portion of the new line and our company could construct our portion in time to get power over the line during the load period that we were worried about.

Presiding Examiner: What period was that?

The Witness: That was the 1949 peak.

Presiding Examiner: 1949-1950?

The Witness: The 1948 and 1949 peak.

By Mr. Chanler:

Q. 48 and 49 or 49 and 50? A. 48 and 49.

[566]

appear here. They are correct.

By Mr. Searls:

Q. This schedule which is identified as Exhibit 20 contains the discount for deliveries in excess of 8 million kilowatt hours per month, does it not? A. Yes.

Mr. Searls: That is all.

Mr. Chanler: Points of information: What is the difference between this schedule P-31 and the schedule P-31 that was approved by the California Commission in 1946?

The Witness: That is it. This became effective September 1, 1946.

By Mr. Chanler:

Q. Immediately after the hearings in 1945, they approved a Schedule P-31? A. Yes. There have been Schedule P-31s but this is the one that was in effect in 1948 when the Sierra contract was made.

Q. And it is the one the substance of which is carried into the present contract between Sierra and the company? A. FPC No. 3, yes, sir.

Q. FPC No. 3? A. Yes . . . .

Presiding Examiner: Number what?

Mr. Chanler: The present contract now in existence

[567]

called FPC No. 3.

* * * * *

Q. When did the Bureau indicate that they might be able to supply that power? A. Depending on the appropriation for the line. I

[657]

believe they said 1951 was the earliest.

Q. If you had agreed with the Bureau there was every indication that there would be very strong public pressure to have a line constructed so you could obtain the Bureau power from the State of Nevada, was there not? A. That is true.

Q. In balancing these various considerations, what did you finally conclude? A. I signed a contract with the Pacific Gas and Electric Company.

Q. Before that you received this report from Mr. Devore, I think, in the end of December, didn't you? A. That is right.

Q. Did you then continue negotiations with Pacific Gas and Electric and agree on various details? A. Small details, and then signed the contract.

Q. And that was not signed until March 4? A. March 4.

* * * * * *

[659]

Q. That agreement resulted from your discussions and negotiations as to whether they would build you a 110 or a 66 kv line, and it was finally determined, was it not,

[660]

that it would be more economical for you to build the substation to reduce the power from 110 to 60 at Cali-

fornia substation, than for them to transform it down at Drum as you had originally requested, is that right? A. That is true.

Q. And this agreement was a solution of that problem? A. Yes, sir.

Q. You have spoken of the pressure from various government and private groups and civic organizations in Nevada. Would you have accepted a contract with Pacific Gas and Electric, on terms substantially similar to these, if the rate had been substantially higher than that finally quoted to you? A. It is my honest opinion that we could not, because the pressure for cheaper power in Nevada was so strong that we would be forced to do something.

* * * * *

[666]

Q. There has been a suggestion made here yesterday that perhaps the present contract should be modified so as to relieve Sierra of the provision prohibiting it from seeking sources of power elsewhere, as now contained in this contract.

Would you be placed in the same position you were in in 1948, regarding developing or obtaining other sources of power if you were relieved today of the provisions of the contract prohibiting you from obtaining power from other sources? A. I think the answer to that is that you can't turn the clock back. You can't get to the same situation at the present time as we had in 1948.

Q. Will you develop that thought, specifically in regard, for instance, to Shasta Power—the Bureau's proposal, in other words? A. That one phase of it—since 1948, as mentioned yesterday, I believe, Pacific Gas and Electric has entered into a Wheeling contract with the Reclamation Bureau.

[622]

FRANK A. TRACY was called as a witness, having been first duly sworn, was examined and testified as follows:

Direct examination by Mr. Chanler:

Q. What is your full name, Mr. Tracy? A. Frank A. Tracy.

Q. What is your position with the Sierra Pacific Power Company? A. President and director of the company.

Q. How long have you held that office? A. Since 1942.

* * * * *

[623]

Q. As part of your duties as president and director during this period, it has been your responsibility, has it not, to consider the supply of power which was available to Sierra? A. It has been, yes.

Q. Will you briefly describe Sierra's business? A. The Sierra Pacific Power Company is in the business of furnishing electric service to Northern and Northwestern Nevada and Eastern California. It also furnishes gas and water to the Cities of Reno and Sparks, Nevada.

Q. From what sources does it obtain its electric power? A. The majority of the power distributed by Sierra Pacific Power Company is obtained through purchases from the Pacific Gas and Electric Company to the west.

Q. Do you produce any power of your own? A. We produce about 9,000 kilowatts of power from five small river run hydro generating plants and buy the remainder from Pacific Gas and Electric.

Q. Those are your only two sources other than a few

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incidental exchanges, is that right? // A. A few incidental

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exchanges and minor contracts.

Q. Sierra has been purchasing power from Pacific for how long, do you know, from the records of the company? A. Since 1923.

Q. Since that time there have been, I think, four contracts between Sierra and the company—1923— A. 1938 and the 1948 contract.

Q. There were two contracts in 1923? A. Yes.

Q. And those are the contracts that are contained in Exhibit No. 5 that is here in evidence? A. That is right.

Q. You are familiar with their terms, are you not? A. I am.

Q. Did the time come in the last eight or ten years when you became concerned over having an adequate supply of power to fulfill the needs of your company? A. There have always been times like that when the company has reached a point where they need more power, the last one being in the period of 1945 and 1946 when we began looking around for sources of power to take care of our demands during the next few years when we exceeded our capacity to serve.

* * * * *

[630]

Q. Have you had any further discussions or correspondence regarding this subject during the next three or four months? A. I was very anxious to get a proposal on a 60 kv. line which I hadn't been able to get up to that time.

Q. Did you finally get such a proposal? A. I did.

Q. I show you the letter of April 1, pages 23 and 24 of

[631]

Exhibit 11. Does that refer to the proposal to give you a 60 kv. line? A. That does, and as the letter shows Mr. Fisher stated that it would mean an additional charge for power of $63,000 per year than it would if delivered by a 110 kv. line.

* * * * *

[632]

Q. Between this letter you received April 1, 1947 and your conference on October 4, you did have further discussions regarding the relative costs of the 60 and 110 kv. lines, did you not? A. That is true, yes.

Q. You asked how they reached the additional charge? A. That is right.

* * * * *

[633]

Mr. Chanler: At this time I would like to have identified a sheaf of correspondence and memoranda, which this witness has mostly identified, with the Bureau.

Presiding Examiner: Does this purport to be, Mr. Tracy, all of the correspondence between your company and officers of the Reclamation Bureau?

The Witness: That is all of the correspondence—everything that was put on paper. However, there were several discussions and meetings besides, that are not mentioned in the letters.

Presiding Examiner: This bound volume of correspondence will be identified as Exhibit 21.

(The above-referred to document was marked for identification as Exhibit No. 21.)

* * * * *

[636]

Q. The next problem would have been in 1949 and 1950? A. That is true.

Q. And according to your studies it was possible that the then facilities of Pacific Gas and Electric would

[637]

be inadequate to meet your load as of that date, is that right? A. I think the 1949 peak entered into that too.

Q. The anticipated 1949 peak? A. That is right.

[639]

By Mr. Chanler:

Q. Mr. Tracy, that letter of December 17, 1946 and the memorandum enclosed therewith, which is on pages 2 and 3, refers to a conference you had, as appears from the memorandum, with a representative of the Bureau in your office, with Mr. Armstrong, Mr. Devore, and Mr. Barnett? A. That is true.

Q. They are all officials or employees of Sierra? A. They are.

Q. And you have read that memorandum? A. I have.

Q. Does it reasonably accurately reflect the subject

[640]

matter of the discussions you had at that time? A. It reflects the general discussion that we had in the meeting of December 12 referred to.

Q. What was the Bureau's proposal at that time? A. The Bureau informed us that they could furnish our

A. At the time we entered into the contract we did make studies of steam plants, hydro plants, and so forth, yes, sir.

Presiding Examiner: Did they make studies?

The Witness: I do not know whether they did or not.

* * * * * *

[670]

By Mr. Chamler:

Q. Mr. Tracy, when you were speaking just before the recess, in answering the Examiner's questions regarding the increased costs, you were speaking of the costs of constructing your own production facilities, such as steam or hydro development of your own within the State of Nevada, were you not? A. That is right.

Q. And it is those costs that have increased very greatly since 1948? A. They have, yes.

Q. So that you no longer feel that you could construct your own facilities and produce as cheap a rate for the consumers of Nevada as you could have done in 1948 if that had been necessary? A. That is certainly true.

Q. Mr. Tracy, after you had gotten the rate reduced to this present rate and considered Mr. Devore's report and all the angles and you approved this contract, you were confident yourself that it was a good contract? A. I was, yes.

Q. And advantageous to your company? A. I believed it to be.

* * * * *

[675]

Presiding Examiner: The hearing will come to order.

Mr. Wahrenbrock: Mr. Examiner, I am glad to be able to state that as a result of a conference held during the noon recess, counsel have reached an agreement which I will read and which we can show on the record represents our agreement: the parties stipulate that for the purposes of this proceeding only the facts would support a Commission finding that five-½ percent is a reasonable rate of return for Pacific Gas and Electric Company's electric department on a net investment rate base, without prejudice to the right of Sierra Pacific Power Company to contend that such facts are not relevant or material to any issue in this proceeding.

Presiding Examiner: That is agreed to, is it, gentlemen?

Mr. Searls: That is agreed to, Mr. Examiner.

Mr. Chanler: That is agreed to.

* * * * *

[676]

GEORGE G. DEVORE was called as a witness and, having been first duly sworn, was examined and testified as follows:

Direct examination by Mr. Chanler:

Q. What is your full name? A. George G. Devore.

Q. And what is your position with the Sierra Pacific Power Company? A. I am at the present time doing special work for the Sierra Pacific.

* * * * *

[677]

From 1924 to 1952 I was employed with the Sierra Pacific Power Company and its predecessors on various

requirements and submitted to us the so-called postage stamp rate which I understand is the rate the Reclamation Bureau quoted to all prospective customers.

Q. And is that the rate set forth in the document annexed to the report, pages 4, 5 and 6? A. It is.

Q. Entitled "Interim Schedule of Rates for Firm Power Service"? A. That is true.

Q. Did you have any objections to their proposal, from your standpoint? A. Their proposal was objectionable from our standpoint on two major points. One was that they would, on their first project, only guarantee a single transmission line, assuming that they were able to get congressional approval for such a line. Then the second important point that we objected to was the fact that we being a utility were low on the preference list of the Reclamation Bureau. In other words, they sell first to themselves, secondly to government bodies, and third

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to municipalities and so forth in that class, and then the utility is down the line.

During that conference Mr. Elmore, as shown by his memorandum, was going to give consideration to getting away from those objections.

Q. To keep the record straight: the Bureau of Reclamation had no lines into Nevada that could connect with your system at that time, did they? A. That is true.

Q. How could they get a line in there? A. They would have to have a contract or contracts in sufficient amounts to justify the building of a line.

Q. And then would any further steps be necessary? A. Then the congressional approval and the allotment of funds for the line would have to be forthcoming.

* * * * *

[644]

Q. What is Mr. Devore's position in the company? A. He is Water Resource Engineer.

Q. And he had charge of conducting these negotiations in the first instance with Mr. Smith and representatives of the Bureau, is that right? A. That is true.

Q. Did you direct him to make any studies regarding the power requirements that your company might have over a 15-year period? A. I asked Mr. Devore to make such a projected study of power demands for a 15-year period; yes, sir.

Q. About when did you do this, do you recall? A. That

[645]

was about the time the Reclamation Bureau // contacted the Colorado River Commission.

Q. And that was after you had received Mr. Fisher's letter stating that he would want a 15-year contract if you dealt with the Pacific Gas & Electric? A. That was after receiving his proposal, yes.

Q. And did Mr. Devore make such a projected study? A. He did.

Q. And did you consider what the cost of power might be under the Bureau's tentative proposals—the postage stamp rate, as you call it—over a 15-year period, in the light of that study? A. That is right, yes.

Q. And thereafter did you have a conference with representatives of Pacific Gas & Electric Company regarding taking up the question of the contract with them and the rate under such a contract? A. The latter part of October—October 25.

Q. Excuse me. I was trying to draw your attention to the meeting you had testified to before. Perhaps I framed

my question badly. You testified you had a meeting with them, I think, on the fifth of October? A. On the fourth.

Q. The fourth of October? A. I believe it was.

[646]

Q. Will you tell us about that conference now? // Who did you confer with on behalf of Pacific Gas & Electric and what was said? A. That was a conference in the Pacific Gas & Electric office of Mr. Wishon.

Q. Who was Mr. Wishon? A. He was, I believe, the general manager at that time of Pacific Gas & Electric Company.

Q. Is he now alive? A. He has since passed away.

Q. What was the subject matter of that discussion? A. The review of the entire situation, referring to the efforts of the Reclamation Bureau to secure a contract with the Colorado River Commission and the Colorado River Commission wanting us to be the outlet for the power, and asking Mr. Wishon if the first proposal of rate under proposed Pacific Gas & Electric contract could not be reduced.

Q. By that you are referring to the proposal in his letter of January 22, 1947? A. That is right.

Q. For a 15-year contract at existing rates plus a fuel escalator clause? A. That is right.

Q. What did he say to that? A. He said that he was

[647]

very sorry but they couldn't // reduce the rate and they would have to have the fuel charge, so, not being able to accomplish anything, I left.

Q. What did you do? A. I went back to Reno.

Q. Did you have any further discussions with Mr. Devore regarding the situation with the Bureau during this period? A. We were continually having discussions because the contacts that Mr. Devore was having with the State Engineer, who was the member of the Colorado River Commission, continued all through that period.

Q. When and where did you next have a discussion in your office in Reno with representatives of the Pacific Gas & Electric Company? A. Representatives of the Pacific Gas & Electric Company came to Reno on October 25.

Q. Of what year? A. 1947.

Q. Do you recall who was there for them? A. Mr. Sutherland.

Q. Who was Mr. Sutherland? A. He is at present the vice president and general manager, I believe. And I believe Mr. Dreyer was present and one other engineer from Pacific Gas & Electric. I do not recall his name.

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Q. What was the substance of the discussion you had with them? A. The purpose of that meeting was to get first-hand information on the power situation at that time—the problems—and see whether or not Pacific Gas & Electric would make an offer that would solve those problems.

Presiding Examiner: You were the only representative for Sierra at that conference?

The Witness: No, sir. I had my top men there.

Presiding Examiner: Who were they?

The Witness: Mr. Barnett, my general superintendent; Mr. Armstrong, executive engineer; and Mr. Devore, water resource engineer.

By Mr. Chanler:

Q. You have stated that the Colorado River Commission and the Bureau were pressing upon you to enter into a contract with the Colorado River Commission. Was there any pressure on you from any other sources to enter into such an arrangement? A. Just at about that time was the maximum pressure of the surrounding communities whose ideas were formed by the tremendous publicity that was given at that time to the possibility of getting cheap government power into Nevada, and all of these groups,

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including // the chambers of commerce, the businessmen's associations, the cities, counties, county commissioners, all of them, were exerting pressure on our company not to lose the opportunity of getting cheap government power into Nevada.

Q. And you called this to the attention of the representatives of Pacific Gas & Electric? A. That was the purpose of the meeting: to give them first-hand information of what the situation really was.

Q. As a result of further discussions, did you reopen the question of rates under the proposed contract that they were suggesting to you? A. That was the solution that they offered at that time to relieve the situation. They said that they would reduce the rate proposal and attempt to get it as near P-31 as possible, that they would keep the P-31 rate in mind, and that the fuel clause would not be considered in the rate.

Q. Did they agree to drop the fuel clause? A. Yes, sir.

does that paper come from, may I ask you? A. The original of this paper was given to me by a Mr. A. M. Smith, State Engineer of Nevada. The body of the telegram, signed by Mr. Straus, was the original telegram, so I was informed, and the note at the bottom was a note typed on the telegram by Mr. Smith.

Q. When he handed you this paper? A. That is correct.

Q. And about that period, when you received this paper, did you commence having conferences and discussions with Mr. Smith representing the Colorado River Commission, and with representatives of the Bureau, regarding plans for supplying power from the Bureau through the Colorado River Commission to Sierra? A. Mr. Smith contacted me prior to March 19, 1947 in connection with the possibility of the Colorado River Commission helping to solve the problem of power supply. This telegram of

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March 19, 1947 was in reply to a wire // that Mr. Smith sent on March 14 asking for a conference with Mr. McPhail.

Q. Who is Mr. McPhail? A. Mr. McPhail is an assistant to Mr. Straus—or was an assistant—in charge of power developments for the Bureau.

Q. And who is Mr. Straus? A. Mr. Straus was the Commissioner recently for the Reclamation Bureau.

Q. What happened during the several months following March and April and through the summer in connection with these proposals? A. The meeting of March 28, 1947 referred to in this telegram occurred and I was present at the meeting. At that time Mr. McPhail thought it was quite feasible for the Bureau to supply power to the Colorado River Commission from Shasta who in turn

Q. What is the effect of that so far as your obtaining power from the Bureau?

Mr. Searls: I object, unless it appears that the

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witness // is fully familiar with that contract and all the circumstances.

Presiding Examiner: You didn't let him finish. He started to tell things and you threw a herring across the trail, Mr. Chanler.

Let the witness finish.

Mr. Chanler: I beg your pardon.

The Witness: This is public information. I am sure that everybody realizes it. The Wheeling Agreement is an agreement for Wheeling Central Valley's power within a certain area in what is called the Central Valley area, and in general it means that aside from the power that is wheeled all the rest of the output of Shasta and Central Valley's development would go through the Pacific Gas and Electric System.

Then in addition to that another change that has taken place is this: It is common knowledge that the California legislature has promoted several bills which prohibit the exportation of certain power from the State of California.

I have a question to my attorney for a legal opinion as to those bills at the present time but I haven't the answer as yet, but it is a factor that has changed since 1948, and those two are the two major factors that have changed.

That is why I say you can't turn the clock back to 1948—conditions as they were at that time.

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Presiding Examiner: You were saying that because of the occurrence of those two events you could not possibly be restored to the position you had at the time you made your bargain.

The Witness: We certainly would not have the bargaining position that we had at that time, no, sir.

By Mr. Chanler:

Q. In other words, it is your duty to look for alternate sources of power, if there is any danger of losing what you have or not having enough, isn't there? A. That is right.

Q. And that is what you did in 1946 and 1947, as you have testified? A. That is right.

Q. You finally accepted this contract? A. That is right.

Q. From your knowledge of possible or potential sources of power which you could have obtained then and which you could obtain today, you say that if this contract were terminated so that you were free to go elsewhere, you would not have any available sources of power that would be at all satisfactory to fill your needs as of today, other than Pacific Gas and Electric? A. Another item that I didn't mention is: Everybody knows that the

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cost of construction has gone up in the // last five years. What might have been a feasible project in 1948 might not be feasible now.

Presiding Examiner: Were not construction costs considered in your negotiations with Pacific Gas and Electric for this 1948 contract?

work in operations and also in investigations of power resources, appraisal work, engineering investigations in general.

Since 1951, I have been employed on special work by them and other outside parties.

Q. So that you have been with the company over a period of how long? A. A period of 41 years. In that neighborhood.

Q. During the period from 1945 through 1948, what was your position exactly with the company? A. The principal work in that period was power investigations and contract work and water litigation and adjudication of water rates.

Q. What do you mean by power investigations? A. In making preliminary studies of the development of power on the different streams in the vicinity of the area served by the Sierra Pacific Power Company.

Q. Did you take part in any investigations by the company as to available sources of power during this period?

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A. I did.

Q. And did you make any studies as to the probable power requirements of the company? A. I did.

Q. In the course of these studies did you conclude that Sierra would in the near future be in need of additional sources of power? A. I did.

Q. And did you take charge of investigations on behalf of your company of other sources to meet such needs? A. I did.

Q. What such studies did you personally participate in? A. I participated in the studies on the development of power in the Walker River, Carson River, and Truckee River in that area. Then I also contacted the Reclamation

Bureau and the Colorado River Commission in connection with the possibility of securing power from those sources.

I think that list possibly should also include the California Edison Electric.

Q. California Electric Company? A. California Electric.

* * * * *

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Q. What other suggestions for supplying power did you consider during this period? A. We considered the possibility of securing power from the steam plant. Personally, I didn't work on the estimates for this power.

Q. That would be a steam plant that Sierra constructed itself? A. That was the idea.

Q. Then you speak of developments on the Truckee River and the Walker River. Those would be your own developments, would they? A. That would have been a multi-purpose development in connection with the government, and which would use rights owned and controlled by the Sierra Pacific Power Company.

Q. On the Walker and Truckee Rivers? A. That is correct.

Q. And then was there a proposal from the Bureau to get Shasta Power from the north instead of Boulder power

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from the south? // A. Yes. During 1946 and 1947, the United States Bureau of Reclamation contacted the Sierra Pacific Power Company and I had several conferences with Mr. Elmore, considering the possibilities and requirements of Sierra in which he proposed the possibility of a contract with Sierra for supplying power to Sierra from Shasta.

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Q. Were those the proposals for direct supply that Mr. Tracy spoke of this morning? A. Yes.

Q. Directly by the Bureau to your company? A. Yes, except for the Pacific Gas & Electric negotiations.

Q. I mean this was a proposal by the Bureau to supply power directly to Sierra Pacific Power Company and not through the Colorado River Commission? A. That is correct.

Q. And that proposal, I understand, was turned down because of the priority situation, is that right? A. There were objections to the proposal of the Bureau, and in order to eliminate some of these objections of Sierra's to the Bureau's proposal the matter then was referred through the Colorado River Commission of Nevada who would enter into the contract with the Reclamation Bureau.

Q. Before going on with that I have got to ask you what happened to the proposals to obtain Boulder power by exchange through California Electric? A. They were discontinued for a number of reasons as it was thought that it was more feasible to work through other sources.

Q. Didn't this priority question come in there, too?

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A. No.

Q. Then turning now to Exhibit 21 put in this morning, a file of Bureau of Reclamation correspondence and memoranda, I will ask you to turn to page 10 which contains a copy of a telegram and a note at the bottom, and will ask you to tell us what those two entries represent, which were referred to this morning by counsel. Where

would subcontract it to the Sierra Pacific and other resale customers in the northwest part of the State of Nevada.

Q. The first immediate proposal was that the Bureau would sell to the Colorado River Commission, a Nevada state body, is that right? A. That is correct.

Q. Why was Sierra brought in at that stage into the

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negotiations? // A. Sierra was the principal distributor of power in the northwest part of Nevada and was the company that was seeking additional power at that time.

Q. Was there any reason why the Colorado River Commission had to enter into any arrangements with you at the same time they were negotiating with the Bureau? A. Under the plan of the contract between Colorado River Commissio and the Reclamation Bureau the Colorado Cominission would have had to secure contracts for sale of the power before they could sign a contract with the Bureau for the larger amount of power in order to protect the state financially.

Q. During the course of the summer did these negotiations reach a point where you were talking about rates and cost of power under the proposal? A. Yes. The rates and the cost of power were brought out at the meeting on March 28 and continued for discussion during the balance of the summer.

Q. As a matter of fact, the Bureau has a fixed rate, so much per mill, doesn't it, delivered at the point of purchase—the place where the purchaser takes it? A. The Bureau rate is referred to as a postage stamp rate and it is a demand and energy charge rate with a minimum.

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Q. Deliv ged anywhere? // A. Delivered in the Central Valley area or watershed, as they interpreted it.

Q. You are not in the Central Valley area? A. Only to a very small extent.

Q. What rate were they quoting for delivery to you in Nevada? A. They were quoting delivery to us at Donner Summit and also at a point near Doyle or Portola on the Feather River watershed in the State of California.

Q. What rate were they quoting there—the same postage stamp rate? A. Yes.

Mr. Wahrenbrock: "There" meaning each of those delivery points?

The Witness: One or two delivery points.

Mr. Wahrenbrock: The same postage stamp rate?

The Witness: Yes, sir.

By Mr. Chanler:

Q. How did they propose to get the power to you at these points of delivery? A. They proposed to construct a transmission line from Sacramento to Summit and a second line from Red Bluff to Portola or Doyle, and then connecting the terminals of these two lines together so as to create a loop line.

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Q. Who was to construct these lines? // A. The United States Bureau of Reclamation.

Q. Was it necessary for them to obtain an appropriation of Congress before they could build such a line? A. It would have been.

Q. Did you discuss with them where these lines would go, what their capacity would be, and what the time elements would be of having them built and so forth? A. The line of progress between the point of contact with

their 230,000 volt line and the terminal point was not discussed. The terminal points were discussed. The period of construction was discussed and they anticipated that the first line would be constructed in 1951, the second line in 1954, and discussion was held as to the possibility of a third line, possibly in 1956.

* * * * *

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Q. You didn't attend a meeting in San Francisco on October 4, that Mr. Tracy testified about this morning when he met with Mr. Wishon of Pacific Gas & Electric, did you? A. No, I did not.

Q. Did you attend the meeting in Mr. Tracy's office in Reno on about October 25? A. I did.

Q. Do you recall what the subject matter of discussion there was. First, do you recall who was there, in general? A. Mr. Tracy, Mr. Armstrong, Mr. Barnett, and myself for the Sierra Pacific; Mr. Sutherland, Mr. Dreyer, and one other party of the Pacific Gas & Electric Company. I am not sure whether he was an engineer or in the commercial department. I can't remember clearly as to that third party.

Q. It was not Mr. Pollard? A. Not according to my memory.

Q. What took place at that conference? A. The principal discussion after it was decided that they would reconsider their rate was as to the type of rate and the general charges of the rate. It had been the desire of the Sierra Pacific Power Company to get a rate similar to P-31, and

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as I recall the meeting // there on October 25, it was agreed that they would attempt to give us the equivalent

of P-31 or a rate similar to it. At that time the Pacific Gas & Electric did not commit themselves, as I recall, as to the exact rate that they would give us, that they wished to take it under consideration and study, and that they would thereafter submit to the company a rate and a form of contract.

Q. During this period and previously, as you testified, you were having conferences with various state officials of the State of Nevada and citizens of Nevada and representatives of the Bureau in considering the possibility of getting power from the Bureau, were you not? A. I was.

Q. And there was considerable public interest in that proposal, was there not? A. Very much. Very much public interest. It became quite a popular subject for discussion in the paper and in the different public bodies throughout the territory served.

Q. Was it a matter of common knowledge to everyone in Nevada, or who knew about Nevada, as a matter of discussion and interest? A. Yes.

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Q. Was it discussed at the meeting of October 25? A. Yes. As I recall, Mr. Tracy outlined the pressure that was placed on the Sierra to secure a lower rate, and the pressure of the people who wished Sierra to secure power from Shasta.

Q. After that meeting on October 25 were you shown a copy of a preliminary draft of a contract dated October 21, 1947 between the Colorado River Commission and the Bureau which appears at pages 11 to 25 of Exhibit 21? A. Mr. Smith, the State Engineer, gave me a copy of this draft. It was the result of the meeting on March—

Q. On March 28, that you testified about? A. I think

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that was the date, March 28, at which Mr. McPhail was present and subsequent meetings that the Colorado Commission officials held in connection therewith and discussions that they held with Mr. McPhail and the Reclamation Bureau officials.

Q. This is the first time that these discussions were brought down to the form of a draft contract so far as you remember? A. Yes. I couldn't say whether there might have been some preliminary drafts to that October 21 or not, because they discussed terms and conditions of the contract prior thereto and it is quite possible that

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there was a draft of an agreement prior to October 21.

Q. In any event the various terms set forth in that agreement had been under discussion during the summer months, is that right? A. That is right.

Q. That contract contains proposed terms regarding rate to be paid for power under that contract? A. That is correct.

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Q. Did you call this contract to the attention of Mr. Tracy? A. I did.

Q. And did he ask you to make any studies in connection with it? A. Yes. He asked me to make a study of costs under it; and he wanted to know what power would cost under that rate.

Q. Over what period? A. I think the first time that we discussed it he probably didn't ask for a long term period. I think he wanted to know in general what the costs would be and then afterwards, why, he wanted to know what the cost of the power under this contract would be, based on the study that I made on October 10.

Q. In other words, did he ask to apply the rates appearing in this contract to the power requirements estimated by you in your October 10 estimate? A. He did.

Q. And did you produce such a study? A. I did.

Q. Do you remember when? A. On December 10, 1947.

Q. Shortly after that—I think the record shows, from

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Exhibit 11, that it was on December 17 the same // year—do you remember whether you or Mr. Tracy received a letter dated December 12 from Mr. Sutherland of the Pacific Gas and Electric, inclosing two copies of the proposed Pacific Gas and Electric contract which had been discussed and outlined at the meeting of October 25? A. Yes. The letter from the Pacific Gas and Electric Company was dated December 12 but was not received until December 17 as far as my information is concerned.

Q. And that contained a draft proposal of the contract that had been under discussion in the meeting of October 25, did it not? A. It was the first draft resulting from the discussion of the meeting of October 25.

Q. Did it contain a schedule of rates? A. It did.

Q. Mr. Tracy this morning told us that that schedule of rates was substantially the same schedule of rates that remained in the contract at the time it was signed on March 4, 1948 and is still in the contract, is that correct? A. That is correct, to the best of my memory.

Q. When you received that draft contract and that schedule of rates, did Mr. Tracy ask you to make any study regarding the effect of those rates on your proposed

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estimated power requirements? // A. He did.

Q. Did he ask you to make any comparison between the two? A. He did.

Q. Did you make such a comparison? A. I did.

Q. Did you compare the rates and also the various terms and conditions involved in the two proposals? A. I compared not only the rates but I compared conditions under which the power would be delivered or sold under the two contracts. These conditions were not all necessarily embodied in the two contracts.

Q. You mean the conditions that existed at the time the two proposals were presented, is that right? A. Yes.

Q. Such, for example, as the question of how long it would take to obtain the power—is that the sort of thing you mean? A. That was one of the considerations.

Q. And then the reliability of the sources of power? A. That was another consideration.

Q. What was the situation there as between the two proposals? A. The plan of the Reclamation Bureau for

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delivery // of power was the—the earliest date set was 1951 for the first line, 1954 for the second line, and possibly third line in 1956. Pacific Gas and Electric Company, in the discussions, felt that they could meet delivery of power by the end of 1949 or the first part of 1950. That was one of the points in consideration.

Q. You expected a peak load in 1949 which might be difficult to meet under existing facilities? A. The peak load of the Sierra system ordinarily occurs in December or January—more often in December—and it was the estimate based on the power study that the 1950 peak would exceed the capacity of the two 60,000 volt lines

supplying Sierra, as they existed at that time, and it was my desire to have power available if possible in 1950. That was one of the points I took into consideration on my recommendation to Mr. Tracy.

Q. Why did you desire to have additional power by 1950? A. In order to be able to supply all our customers with their demand.

Q. What was the result of your comparison as to rates between these two proposals? A. Over the period of the contract—a 15-year period, I will say—of the study made, I estimated that the Reclamation Bureau cost was about

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.55 mills cheaper // than the Pacific Gas and Electric cost under the rate submitted.

Q. But nevertheless you believed that the Pacific Gas and Electric proposal was more advantageous to the company and to its customers in Nevada than the Bureau proposals, is that right? A. That is correct. I took into consideration the continuity of service that the Pacific Gas and Electric could offer as against one line for the Bureau up until the second line was installed, and then I compared the two lines up to 1956, compared to what the Pacific Gas and Electric could offer. I also took into consideration the two plants that the Bureau had or would have at Shasta as compared to the number of plants that the Pacific Gas could offer for service and other features, compared to dealing directly with the Pacific Gas and Electric, as compared to dealing indirectly with the Bureau, and I felt that our consumers could afford to pay .55 mills more per kilowatt hour for their power for those advantages than the service as offered by the Reclamation Bureau.

This item, of course, for a yearly charge is not so large, but over a period of 15 years it would amount to some $2,000,000 increased cost of Pacific Gas and Electric over

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the Bureau rate—or the Colorado Commission // I should say, instead of the Bureau, because they would be the party we would contract with.

Q. But you felt that for these other considerations it was better to pay $2,000,000 more over the 15-year period, by paying .55 mills more rather than subject yourselves to the disadvantages that you have spoken of that would come from dealing with the Bureau. A. Yes, for the reasons stated and possibly other reasons that I thought of at that time and I don't recall just at this minute, I felt that the company was justified in paying this additional cost.

Q. Your recommendation was accepted by Mr. Tracy, was it not? A. After consideration, I think it was accepted.

* * * * *

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Presiding Examiner: Mr. Devore, what is the sheet you have just handed to me at the request of counsel?

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The Witness: That is the result of the October 10, 1947 study showing estimated maximum demand on the Pacific Gas and Electric Company system for the 15-year period from 1947 to 1962.

Presiding Examiner: Demand by Sierra Pacific?

The Witness: That is correct. The third column shows the estimated kilowatt hour demand of Sierra Pacific on the Pacific Gas and Electric system for the same years.

Presiding Examiner: And those are the figures you prepared for Mr. Tracy at his request at the time these negotiations were going on in 1947?

The Witness: That is correct.

Presiding Examiner: And what are the pencil figures that you have put in there?

The Witness: The pencil figures are the actual.

Presiding Examiner: Experienced by Sierra?

The Witness: During the six-year period, that has already passed, including one year prior to the date of the contract.

Presiding Examiner: The Examiner asked for these figures yesterday and if there is no objection of counsel I should like to have the reporter transcribe them in the record at this point.

Mr. Chanler: No objection.

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Mr. Searls: We have no objection.

Mr. Wahrenbrock: No objection.

* * * * *

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10/10/47	Est. Max. Demand on PGE (ink)	Actual (pencil)	Est. KWH PGE (ink)	Actual (pencil)
1947	28,860 KW	29,520	87,089,000	85,205,000
1948	32,650	31,680	104,400,000	106,950,000
1949	36,860	38,640	122,900,000	144,077,000
1950	41,400	40,560	143,200,000	164,682,000
1951	46,450	39,300	165,500,000	172,537,000
1952	52,000	46,920*	190,100,000	211,347,000
1953	55,000		203,400,000	
1954	58,200		217,300,000	
1955	61,550		231,900,000	
1956	65,000		247,400,000	
1957	68,700		263,700,000	
1958	72,500		290,700,000	
1959	76,600		298,500,000	
1960	80,800		317,300,000	
1961	85,300		337,000,000	
1962	90,000		357,700,000	

* * * * *

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Cross-examination by Mr. Searls:

Q. Mr. Devore, you testified as to three dates or years in which the Bureau of Reclamation might have to complete lines to serve Sierra Pacific Power Company if it decided to do so and obtained the necessary appropriations. I believe you said that the first line would be completed in 1951 under these assumptions, did you not? A. I said that the first line was estimated to be completed in 1951, as I recall—estimated by the Reclamation Bureau.

Q. What was the point of delivery from that line to Sierra Pacific Power Company? A. They discussed two different lines. I think the last line that they had in mind

* The figure shown is a corrected figure, in accordance with the correction made at R. 1047.

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that would be // completed first was the line from a point on their 230,000 volt line north of Sacramento to Donner Summit. That line was surveyed in a preliminary way, as I understand it, in 1947.

Q. Do I understand you then that that line would deliver power to Sierra Pacific at Donner Summit? A. That is correct.

Q. Is that approximately the location where Sierra Pacific receives deliveries of power from Pacific Gas and Electric Company. A. That is correct.

Q. Approximately how far is it from the point north of Sacramento which you have in mind, to Donner Summit. A. Something less than a hundred miles.

Q. Would you say more than 80 miles? A. I think so.

Q. In 1947 did the Bureau of Reclamation have or own or operate any transmission line supplying the point north of Sacramento which you have in mind? A. It is my understanding that they neither had a line nor anticipated having a 230,000 volt line there prior to 1951.

Q. Is it not a fact that in 1947 the Bureau of Reclamation did not have any transmission line connected with Shasta Power any closer to Sacramento than the City

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of Oroville? A. That may or may not be a fact. The point is that they proposed to have the line there prior to 1951.

Q. What was to be the generating plant or plants from which the Bureau of Reclamation was going to obtain power for this Sacramento-Donner Summit line? A. From the Shasta plants in the beginning, and such other plants as might be available thereafter.

Q. At the present time does the Bureau of Reclamation have any other plants from which it could have supplied such power other than plants at Shasta Dam and Keswick, which is very close to Shasta Dam? A. To my knowledge they have no other plants operating at this time, although they expect to have the Folsom plant operating in the near future.

Q. That Folsom plant is under construction now? A. It is.

Q. What is the total distance, by the route you have mentioned, from the Shasta Dam and Keswick plant to Donner Summit? A. I am not able to answer the question.

Q. Would you say it is in excess of 200 miles? A. My estimate is that it would be in excess of 200 miles.

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Q. Do you think it is more than 300 miles? // A. I wouldn't say so without referring to a map.

Presiding Examiner: Would this map here in Exhibit No. 2 aid you in any way to estimate the distance (handing to the witness)?

The Witness: No, sir.

Presiding Examiner: It would not?

The Witness: No, sir.

Presiding Examiner: All right.

By Mr. Searls:

Q. As I understand it, this line from a point north of Sacramento to Donner Summit was to be a single circuit line, is that correct? A. It was to have a single circuit in the beginning. I don't know how they planned it ultimately.

Q. And at what voltage was that line to operate? A. They spoke of 115,000 volts.

Q. At what voltage was power to be delivered to Sierra Pacific Power Company? A. That was not discussed.

Q. Did Sierra Pacific Power Company, in considering this proposal of the Bureau of Reclamation, contemplate the installation of a substation to stepdown the voltage from the receiving voltage of approximately 115 kv. to Sierra's system voltage of approximately 60 kv.? A. We

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did not get that far along in the negotiations, // but it would of necessity have been stepped-down, either by the Bureau or by the Sierra Pacific in order to feed into the present transmission system of Sierra unless Sierra would make an additional change in their transmission construction.

Q. So far as you are concerned, then, Mr. Devore, the element of what costs Sierra would incur to receive power from the Bureau of Reclamation was not regarded as material, was that so? A. I wouldn't say that.

Q. Can I put it this way: Viewing the proposal of the Bureau of Reclamation, you did not think it worthwhile to determine what Sierra's costs would be in order to take power from the Bureau? A. We didn't progress far enough along to enter into those details. This form of contract here of the Bureau of Reclamation to the Colorado River Commission was presented on October 21.

Q. 1947? A. 1947. A meeting of the minds between the Pacific Gas and Sierra was on October 25. If we were to have a contract from Pacific that we thought was favorable to both the company and the consumers, for a 15-year period, there didn't seem to be much rush to try and study the details of the October 21 contract.

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Q. I believe you testified that the timing proposed by the Bureau of Reclamation, I believe, was to complete a second line in 1954, is that correct? A. Yes. They had under consideration a second line from Red Bluff to Portola or Doyle.

Q. Are Portola and Doyle near together? A. Not "and" but "or."

Q. How far apart are Portola and Doyle? A. By highway I would say they are about 30 or 40 miles. They are on different highways and are approached in different ways from Sacremento Valley.

Q. Approximately how far would you estimate is the distance from Red Bluff to Portola? A. I don't think that I am in a position to make an accurate estimate at this time. You see in order to go from Red Bluff to Portola I don't know whether they had proposed to go over through Susanville and then over the hill to Portola or whether they proposed to take off at Oroville and go up to Portola on the Feather River route or some alternate route in that direction.

Q. In either event the route would be over very rugged territory, would it not? A. Yes, but not at a high elevation. I shouldn't have said yes as to the Red Bluff to

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Susanville-Doyle line. // That is not as rugged as the Donner Summit area. But if they followed up the Feather River route in the canyon they would be in a rugged area, but they may have anticipated another route that didn't follow the river canyon.

Q. Isn't the distance from Red Bluff to Portola or Doyle substantially in excess of a hundred miles by either

of these routes that you have in mind? A. The distance from Red Bluff to Doyle by way of Susanville would be over a hundred miles in my opinion. The distance from Oroville to Portola is probably less than a hundred miles.

Q. And the distance from the Shasta Dam and Keswick plants of the Bureau of Reclamation to Red Bluff is on the order of 40 miles, is it not? A. I would assume that that is approximately correct.

Q. Can you make an approximation of the distance from Red Bluff to Oroville? A. Not without a map.

Q. I wouldn't hold you to the nearest ten miles. Well, let us pass that and perhaps we can say that the route from the Shasta Dam and Keswick plants by way of Red Bluff, and Susanville to Doyle, might be in the neighborhood of 150 miles, allowing you a wide margin // or error.

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The Witness: Will you read the statement?

(Statement read.)

A. I think with that qualification that it would be correct.

By Mr. Searls:

Q. And the distance from the Shasta Dam and Keswick plants by way of Red Bluff and Oroville to Portola would be about the same or greater than the previous distance just mentioned? A. I would say it might be approximately the same from Shasta Dam, but probably not greater.

* * * * *

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Q. Did you make any comparable study—comparable to the one you made of the Bureau of Reclamation power possibilities from Shasta Dam—with respect to obtaining

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power from the California Electric Power Company? A. There was a different type and Mr. Tracy worked on that more than I did. I was in on one of the conferences.

Q. Did you make any estimate of any sort as to the cost of obtaining power from or through California Electric Power Company? A. Only in the preliminary discussions in regard to the exchange of an increased percentage of kilowatt hours to the California Electric in return for power developed in their Mono Basin area.

Q. Does Sierra Pacific have a connection with California Electric at the present time? A. No. They are separated about 20 miles.

Q. When was this possibility of power from or through the California Electric Power Company considered? A. I think it was in October 1946.

Q. When was the last conference between Sierra Pacific and California Electric on that subject, that you know of? A. That was the only conference that I attended, and I couldn't answer as to the other conferences.

Q. Was any consideration given to that possibility through California Electric after October 1946? A. I

[736]

couldn't answer that. There wasn't to my // memory.

Presiding Examiner: By that you mean you didn't participate.

The Witness: That is correct.

Presiding Examiner: You are not speaking for Mr. Tracy?

The Witness: I am not.

By Mr. Searls:

Q. You were not asked to make any studies in that connection after October 1946, were you? A. I wouldn't want to tie it down to the exact moment. I may have made some studies in November or December, shortly after the conference.

Q. But none other than that? A. That is the termination of my work on that study.

Q. Do you have Exhibit 12, Mr. Devore? A. Yes.

* * * * *

[738]

Q. I do not mean to read anything into that, Mr. Devore. Did you make a recommendation as to whether arrangements should be made with or through California Electric Power Company for obtaining power for Sierra Pacific?

[739]

A. I believe, as near as I can remember, that I advised Mr. Tracy that if he could secure an exchange of one and one-quarter kilowatt hours from Boulder for a kilowatt hour from the California Electric system, that he would be justified in making an agreement, provided the exchange was sufficient to justify entering into it. I don't think that I had the total power available, that the production system and the transmission system of California Electric

was available to deliver at Mono, available for my information.

Q. In other words, was your conclusion based on a determination which was not then made as to the total amount of power which could be obtained by that means? A. I didn't quite get the question.

Q. I believe you just said that it might be feasible under certain conditions and if the amount of power available would justify it? A. That is correct.

Q. But you didn't know whether a sufficiently great quantity of energy or power could be obtained to justify it? A. I think I qualified my opinion at that time on that quantity of power that was available both in their production system and what they could transmit in their lines up to this point of contact.

[740]

Q. What point of contact did you assume for that purpose? A. Some point near Mono Lake.

Q. Where are the main load centers of Sierra Pacific Power Company? A. In the north central part of Nevada located between Reno on the north, Yerington on the south, Winnemucca on the east and Lake Tahoe on the west.

Q. How far is it from your assumed point of contact near Lake Mono to the City of Reno? A. Something over one hundred miles.

Mr. Wahrenbrock: May I interject a question? I think it won't interfere with your cross. Wouldn't there have had to be a strengthening of California Electric facilities all the way from its Control substation? Wouldn't it have to come all the way

from that point in order to deliver the kilowatts that your sale would involve?

A. As I understand the situation, it would have meant rebuilding from Control, that substation, up to Mono on the part of California Electric. At Mono it was the point that I had in mind where Sierra would make contact.

By Mr. Searls:

Q. Did you make any study as to how much investment

[741]

Sierra Pacific would have to make in order to receive power by that means? A. I did not make a direct study on that particular line, no.

Q. Do you know if one was made by anyone for Sierra Pacific? A. We had studies of costs of transmission lines from Walker into the Yerington and Carson area. The Walker proposed plants are some 25 miles more or less northerly of the Mono area.

Q. Did you have a specific proposal from the California Electric Power Company for this arrangement? A. Not in writing, that I know of.

Q. Did you have a specific oral proposal? A. We had a discussion at the meeting I was there about exchange, but that was the termination of my contact with California Electric.

Q. Was there a specific proposal made in that discussion? A. Only a verbal discussion of possibilities.

Presiding Examiner: Counsel's question was: was there a specific proposal in those discussions?

The Witness: I think only to the extent of discussing the exchange and that is as far as it went.

[742]

By Mr. Searls:

Q. Did you ever receive or have any knowledge of a proposal from California Electric in those discussions or any other time, that was sufficiently specific so that you could compare it with the Pacific Gas & Electric Company proposal or the Bureau of Reclamation proposal? A. No.

Q. Did you ever feel that such a comparison would be worthwhile? A. At that time, with the cost of power at Boulder and with Nevada's allotment being considerably in excess of the allocations at that time, it did seem as though it had merit, because the cost of the power was so cheap compared to the cost of power of either Shasta or the Pacific Gas & Electric.

Q. But as a matter of fact, was it not the difficulty of transporting power from Boulder to the Sierra Pacific system that led to the discard of that possibility? A. No. It wasn't the difficulty of getting power to the Sierra Pacific, as I understood the situation. It would have meant a change in the direction of flow of power. Instead of flowing south power would have flowed north, and I think that they had ample capacity up to their substation. From there north they had to either build a new line or,

[743]

rebuild the lines in existence, but the // construction of the line from Mono into Sierra's territory was not as difficult as construction in the Donner Summit area.

Q. When you said "they" I believe you referred to the California Electric Power Company? A. Yes, I did.

Q. And they would have been put to a very substantial

expense for rebuilding a transmission line or constructing a new one? A. I have no estimate of that cost.

Q. Isn't it a fact that the discussions of this possibility from California Electric never proceeded past the preliminary stages, and that the discussions to the point you have indicated showed that it did not merit further consideration? A. As far as I am informed, that was the last conference that I attended. The general principle of the idea appeared to have merit. It takes two parties to make an agreement.

Q. But is it not a fact that the discussions that were held indicated that the matter should not be considered by the Sierra Pacific Power Company? A. I think Mr. Tracy would have to answer that.

Q. So far as you know, they were not further consid-

[744]

ered? // A. That is right.

Q. When you spoke of the possibility of obtaining power from the Walker River, were your considering power plant constructed by Sierra Pacific Power Company or by the United States Government? A. Both.

Q. In your opinion, how long would it have taken to construct the projected power plants on the Walker River? A. About two years.

Q. And how long would it have been necessary in order to acquire the water rights and make other preliminary arrangements for such construction? A. Sierra Pacific Power Company owns practically all of the land involved on the canals, pipelines, and the larger reservoirs. There is one reservoir that they would have had to acquire title to.

Q. You say there is one reservoir the Sierra Pacific

Mr. Wahrenbrock: I didn't so understand his testimony.

The Witness: I believe I said that they didn't have to be contacted because they were present when the contract was approved.

By Mr. Wahrenbrock:

Q. Approved by the California Commission? A. That is right.

Q. Which was three months later—three months after the date the contract was signed. A. The contract was signed March 4 and I believe the hearing was April 15.

Q. When did you regard yourself as actually having a deal? A. We didn't have a deal until after the contract was approved. We signed the contract before.

Q. And you knew it was going to be signed before it was actually signed? A. I wouldn't say that. I think there might be just a very few days between the time we decided it was going to be signed and ironed out certain things. As a matter of fact, there was one thing that came up that we discussed just before we signed—the possibility of

[942]

some leeway to get some additional generation of our own sometime in the future during the term of the contract.

Q. Your negotiations with the Bureau of Reclamation then had not been of such a nature that you as president of your company felt any obligation to break them off? A. I would like to have it understood that during this last period of negotiation, that we were no longer negotiating directly with the Bureau of Reclamation. It was the Colorado River Commission that was doing the negotia-

ting, and we were in contact with them every day, and as a matter of fact, the members of the Colorado River Commission we told verbally when we decided to sign the contract.

Q. Who is "we"—you, yourself? A. Myself, yes, sir.

Q. Whom did you tell? A. I told a member of the Colorado River Commission and the state engineer, Mr. Smith.

Q. What was the member's name? A. Mr. Mueller.

Q. When did you tell Mr. Smith and Mr. Mueller? A. I don't know the exact date, but it was very shortly—perhaps the same day that I decided to sign the contract.

[943]

Q. I believe you stated at one point in your examination that since your contract with Pacific Gas and Electric was signed the possibility of obtaining Bureau power has become nonexistent because Pacific Gas and Electric has entered into a wheeling arrangement which would preclude sale to Sierra Pacific. Am I correct in that sum-

[944]

marization of your previous testimony? // A. I don't recall exactly what I said.

Q. I direct your attention to your answer on page 667 of the transcript (handing to the witness). A. Enlarging upon what I said, as shown on page 667 of Volume 7 of the transcript: I wouldn't say that that would preclude any possibility of other preference customers getting Central Valley's power, as shown by the fact that just recently the Sacramento Utility District signed a contract with the Bureau of Reclamation.

Q. What would there be to prevent your company, if it

were free to do so so far as its contract obligations with Pacific Gas and Electric are concerned, from purchasing Bureau of Reclamation power and having it wheeled over Pacific Gas and Electric's facilities? A. I believe that the wheeling contract states that they have something to say about that. I would prefer that they would comment on their own contract.

Q. So far as you know, provided Pacific Gas and Electric could be persuaded to wheel the power, you could obtain it from the Bureau of Reclamation? A. If it were available, it could be wheeled physically, yes.

Q. If it were available? You mean if there were sufficient generating capacity to carry your load in addition

[945]

to what they were already committed? // A. To what they had already contracted for, yes.

Q. And you don't know as to whether that is true? A. I don't know.

Q. And the Colorado River Commission is still in existence, is it? A. It is, yes.

Q. And it is as much a preference customer today as it was in 1948? A. That is true.

Q. Or potentially so. A. That is true.

* * * * *

[947]

By Mr. Searls:

* * * * *

[957]

Q. Do you understand that Sierra Pacific Power Company and the Colorado River Commission are outside of

the so-called wheeling area as defined in Pacific Gas & Electric's company agreement with the Bureau of Reclamation for wheeling power? A. The area itself is outside but it is my understanding the proposal was to go and pick it up.

Q. I mean at the present time are you aware of the boundaries which limit the area to which Pacific Gas & Electric Company has agreed to wheel Bureau of Reclamation power? A. I understood that there was such a map

[958]

attached // to the wheeling agreement. However, our area is probably as close as the Plumas-Sierra Cooperative. They are right in our area and while there isn't a wheeling contract for them as yet, they informed me that they expect to get one.

Q. But so far the Plumas-Sierra is not receiving wheeled power and the Pacific Gas & Electric Company has not agreed to wheel such power, is that right? A. That is right, yes.

Mr. Searls: I would like to offer for identification an exhibit consisting of a map which is entitled in the lower left-hand corner "Map showing generating and transmission system of Pacific Gas & Electric Company, Bureau of Reclamation generating plants and transmission facilities completed or under construction."

Presiding Examiner: That will be identified as Exhibit 25.

(The document referred to above was marked for identification as Exhibit No. 25.)

Mr. Searls: By way of brief explanation of Exhibit 25 I will state that Pacific Gas & Electric Company facilities, generating plants, and transmission lines, and certain gas lines, appear on this map in blue as indicated by the legend in the upper right. Generating plants, switchyards and substa-

[959]

tions, and transmission lines of the // Bureau of Reclamation appear on this map in green. This map does indicate certain facilities which are not actually in existence at the present time, but the facilities indicated are either existing or under construction at the present time.

I should add also that not all of the Bureau facilities shown here were in existence in 1948.

By Mr. Searls:

Q. In fact, as far as transmission lines are concerned, Mr. Tracy, it is true, is it not, that in 1948 the Bureau of Reclamation had only a transmission line from its Shasta power plant to the City of Oroville, approximately; is that your understanding, Mr. Tracy? A. I am not familiar with that.

Q. This map also shows a dark green line which is, as indicated, in the right-hand portion of the map, low down, as the boundary of power wheeling service area. I would like to call your attention to Lake Tahoe which appears at the bend in the right-hand or easterly boundary of California on this map, and I would ask, Mr. Tracy, if Reno is not roughly northeasterly of Lake Tahoe? A. Right under the eastern portion of the lake under the mountain.

[960]

Q. And to the left on this map of Lake Tahoe and // a bit above it is the approximate point of delivery of power from Pacific Gas & Electric Company to Sierra Pacific, is it not? A. That is the location you are referring to as Summit—Spaulding No. 1, 2, and 3, to the right of that?

Q. Yes. A. Yes, sir.

Q. The indicated point of delivery seems to be under the numbers 2 and 3 after Spaulding, is that right? A. That is right.

Q. I will ask: If Pacific Gas & Electric Company is not obligated to wheel power beyond the area bounded by the green dashed line, if you will assume that to be a fact would the point of delivery to Sierra Pacific Company be within that wheeling area? A. It would not, as shown on the map.

* * * * *

[986]

Recross examination by Mr. Wahrenbrock:

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[987]

By Mr. Searls:

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[988]

Q. Well, isn't it, in much shorter words, your position that you will not renegotiate unless you are obliged to? A. I think that is a fair statement.

* * * * *

would have had to acquire title to? A. For the ultimate development.

Q. What is the earliest date—let me put it this way: what is the shortest time within which you believe a plant on the Walker River could have been completed from the

[745]

time a decision to construct it was made? // A. Prior to the termination of the Pacific Gas & Electric Company contract.

Presiding Examiner: That is to say the 1938 contract?

The Witness: Yes, sir.

Presiding Examiner: Which expires in 1953?

The Witness: December 1953, as I recall it.

By Mr. Searls:

Q. Do you believe that such a plant could have been completed very much in advance of that date? A. Yes.

Q. How many years do you believe it would have taken, from the time decision to construct such a plant was made, for such a plant to be completed? A. I should think three years, and a maximum of four.

Q. You are talking about a project constructed by the Sierra Pacific Power Company, are you not? A. Yes, I am talking about a study made by the Sierra Pacific Power Company for construction, also referring to the 1943 study of the Army Engineers on the multi-purpose project that they propose on the Walker River.

[746]

Q. What would be the size of the plant you have in mind that would have been completed within that time? A. Approximately 23,000 kilowatts.

Q. Does the plan you have in mind contemplate only one plant on the Walker River. A. Three plants.

Q. A plant on the Walker River would have been dependent, in part at least, on water conditions, would it not, for its actual deliverable capacity? A. On the total delivery of kilowatt hours it would ha been dependent upon the water conditions. The maximum kw., though, would not have depended to any great extent on fluctuation in water conditions.

Q. Would it have been possible to obtain 23 or 24,000 kilowatts from this proposed Walker River plant in any months of the year? A. I think most every month over the peak demand could be operated as peak plants when water supply was subnormal.

Q. Would you have considered the supply of power from such a plant on the Walker River a reliable source of power as compared to the source of power from the Pacific Gas and Electric Company? A. On peak demand, I would consider it equivalent. On kilowatt hours of energy produced, no.

[747]

Q. In your opinion what was it that ruled out the Walker River plant as the source of power for Sierra Pacific? A. The hope that, in the future we would get cheaper construction instead of more expensive construction, and that Sierra Pacific would benefit over long periods of time with cheaper construction, and with the contract as finally entered into at those times I considered that as a very reasonable cost of power.

Q. In making that statement, you have in mind, I suppose, an estimate of the cost of construction of that plant. I would like to ask on the costs of what period

that estimate was made? A. It was based on a 1942 cost and afterwards roughly revised on a 1946 cost, in that neighborhood.

Q. Were the latter figures higher than the former? A. Yes.

Q. By a substantial amount? A. Yes.

Q. Do I understand then that the 1946 figures were such that you did not regard the Walker River plant as economically feasible at that time? A. I wouldn't state it that way. I think it is an economically feasible plan, but due to the possibility of getting cheaper construction

[748]

at sometime and not // losing this opportunity of making this development because the power company owned the rights, and taking into consideration that the Pacific Gas and Electric contract was for 15 years, it is my position that the company from an economic standpoint was justified in delaying construction on the Walker and waiting for the costs to go down and in the meantime acquiring purchased power from Pacific Gas and Electric.

Q. Did you make any endeavor to bring the 1946 figures up to a later date such as 1947 or 1948? A. No.

Q. Did you give that project any consideration after 1946? A. Yes.

Q. In what way? A. In our discussions where we projected the possible cost of producing power there based upon cost index of construction, to have some approximate figure.

Q. Were you still using construction costs as of 1946? A. No—current.

Q. Were costs in 1948 materially higher than those of 1946? A. About roughly 15 percent.

Q. There was a very sizeable increase, was there not?

[749]

A. 15 percent.

[880]

F. A. TRACY was recalled as a witness, having been previously sworn, was further examined and testified as follows:

Cross-examination:

[888]

By Mr. Searls:

Q. Mr. Tracy, I note that on page 2 of that Exhibit 21, in a memorandum, someone in the Bureau of Reclamation reports, apparently on the basis of information from your company, that fuel prices were such as to make steam production impracticable. Was that your opinion in 1946? A. I don't seem to be able to locate that statement.

Q. Subparagraph E under 2. A. I think the answer to that is what he means by impractical. If I remember correctly, what we told him at that time was something in the nature of: with fuel oil delivered at Reno at $2.05 per barrel, there was a possibility of steam generation being feasible.

I believe that that price of $2.05 was just about what fuel oil was selling for in Reno at that time. I think possibly he meant something else other than not feasible

when said "impractical." I don't know what he did mean there.

Q. In your opinion, was that practicable from an economic standpoint for Sierra Pacific to build a steam plant to supply its own load at that time? A. I think at that time it may have been feasible to build a steam plant. Whether or not to supply our own load, at least for peaking purposes.

[889]

Q. When you say feasible, do you mean that it would be economically justified? A. I think the cost per kilowatt hour at that time would probably be in the neighborhood of perhaps 7 to 8 mills which might have worked into our power setup such as to be a feasible addition.

Q. Do you mean that you think you could have produced steam generated power on a peaking basis at a cost of 7 to 9 mills? A. I think that the plants that we would have for it probably could. That was our thinking at that time.

Q. What size plant were you thinking about? A. I think Mr. Devore had something on that. I don't recall myself what size plant they were considering.

Q. Would it have been 20,000 kilowatts? A. I said I didn't recall what it was.

Q. You don't know whether it would be any larger than 20,000 kilowatts? A. I said I didn't recall.

Q. Did you make any investigation of the steam plant possibilities in 1947? A. We took a study that we hired made by Stone & Webster Engineers some years before and brought it up to date. That was the nature of our study.

* * * * *

No Number

EXCERPTS FROM TESTIMONY TAKEN BEFORE FEDERAL POWER COMMISSION ON REHEARING IN DOCKET E-6482.

[No Record Number]

BEFORE THE

FEDERAL POWER COMMISSION

In the Matter of PACIFIC GAS AND ELECTRIC COMPANY	Docket No. E-6482

Hearing Room I,
New GAO Building,
441 G Street, N. W.,
Washington, D. C.,
Tuesday, March 23, 1954

The above-entitled matter came on for hearing, pursuant to notice, at 10:00 o'clock a.m.

Before—MARVIN FARRINGTON, Presiding Examiner.

APPEARANCES:

F. T. SEARLS, 245 Market Street, San Francisco 6, California, appearing on behalf of Pacific Gas and Electric Company.

WILLIAM C. CHANLER, of Winthrop, Stimson, Putnam & Roberts, 40 Wall Street, New York, New York, appearing on behalf of Sierra Pacific Power Company, Reno, Nevada.

HOWARD E. WAHRENBROCK and DREXEL D. JOURNEY, appearing on behalf of the Staff of the Federal Power Commission.

Technical Aide and Consultant:
STANLEY ROLAND

[896]

Q. Mr. Tracy, in the course of your testimony in

[897]

this hearing I believe you mentioned the possibility of a burden on Nevada consumers buying power from your company. In your opinion, is a public utility engaged in supplying electricity as a public service entitled to an increase in its rates if it is not earning a fair and reasonable return? A. I think that is a general concept, and the utility certainly can ask the Commission for increased rates if they believe that they are not getting the proper return.

Q. And that is the law in the State of Nevada, as you understand it? A. Certainly that has been the case. It doesn't mean that you get what you think is a proper rate of return, however.

Q. Can you state whether the Sierra Pacific Power Company has applied for or obtained any general increase in its electric rates in the past 15 years? A. I think that is true. We have not applied for or received an increase in electric rates in the last 15 years.

Q. Has there been any reduction in the rates of Sierra Pacific over that same period of time? A. We had a reduction in rate right after the war; yes, sir.

[898]

Q. What was the date of that? A. I have not the exact date in mind. It was right after the war.

Q. Was it in 1945 or 1946? A. I think it was 1946.

Q. Was that the last rate reduction that Sierra Pacific has had? A. That is the last rate reduction, yes, sir, since that time.

* * * * *

[1206]

JOHN F. ROBERTS was called as a witness and, being first duly sworn, testified as follows:

Direct examination by Mr. Searls:

Q. Will you state your full name, Mr. Roberts? A. John F. Roberts.

Q. By whom are you employed? A. By Pacific Gas and Electric Company.

Q. What is your position with that company? A. Assistant manager of the rate department.

* * * * *

[1207]

Q. Does this Exhibit 35 (revised) contain a study developing the actual cost of service to Sierra Pacific

[1208]

Power Company by Pacific Gas and Electric Company for the years 1948 to 1952, inclusive? A. Yes, it does.

Q. Does that portion of the study appear under the tab in this exhibit entitled "Actual cost of Service"? A. Yes, sir.

Q. What is the basic principle on which this cost of service has been developed? A. This cost of service has been developed on the basic principle of allocating a portion of the Pacific Gas and Electric Company integrated net work to this service to Sierra and adding to that a determination of the cost in connection with the transmission line from Drum power house substation to Summit and other special facilities directly used by Sierra in the

[925]

By Mr. Wahrenbrock:

* * * * *

[926]

Q. Yes. So that you knew, when you entered into this contract—and your legal advice conformed to your knowledge that this rate, like any other utility rate, was subject to regulatory commission alteration so far as the demand and energy charges were concerned? A. If the public interest was involved, yes, sir.

* * * * *

[939]

By Mr. Wahrenbrock:

Q. After you signed the contract with Pacific in 1948, or after the time that in your own mind you felt that it was a deal, what, if any, steps did you take with respect to any outstanding negotiations you may have had for alternative sources of supply? Did you write to anybody or call anybody up? A. The principal alternative supply at that time was the Bureau, and after we signed the contract that pressure still continued through the Colorado River Commission to the extent that several cities after our contract was signed, signed agreements with the Colorado River Commission for power for their own use; so I did not succeed in cutting off that competition right away.

Q. You say you did not succeed, but you haven't said what you tried to do—what steps you actually took, if any. A. Certainly I was very active during that period trying to sell the people on the idea that we had a firm contract

for a period of years and that we considered it a good contract, and that they shouldn't be stampeded into still

[940]

attempting to get Bureau power, // that we wanted them to give our contract a try before they signed up for the Colorado River Commission. In spite of that, several of them did sign up.

Q. But you haven't yet said whether you communicated with the Bureau or the Colorado River Commission. A. We were still in contact with the Colorado River Commission and I think that Mr. Devore could tell you exactly what contacts he had after that date. He was the contact man with the Bureau.

Q. You didn't yourself communicate with the Colorado River Commission or the Bureau of Reclamation and say "Thank you, we are purchasing our power from Pacific Gas and Electric"? A. We didn't have to because they were present at the hearing which approved the contract, and knew all about it, and knew that we had signed up for it.

Q. Was that the only way they got notice? A. Except by verbal contact. As I say, we were continually in contact with them. In a small area like ours we are in contact with all of those groups all the time. I think as I said before that Mr. Devore will enlarge upon that. He has contacts with them even now.

Q. You don't know when or how the Bureau of Reclamation first ascertained that there wasn't going to be a go with you?

[941]

Mr. Chanler: I thought the witness testified that he was present when the agreement was made.

[1211]

not // apply in your opinion to the comparison to be made in the studies you have made in Exhibit 35? A. That is correct.

Q. So that substantially the same fringe lines are taken into account in all of the results you derive in Exhibit 35? A. Yes, sir.

* * * * *

[1213]

Q. Recognizing that the Federal Power Commission has generally used a depreciated rate base in its determinations, will you state why you used undepreciated rate base method here? A. The principal reason I used the unde-

[1214]

preciated rate // base was the fact that the depreciation reserve figures were not available from company records and with so many calculations involved, not only to obtain a rate of return from Sierra Pacific's business, but also from the other resale customers in the answer to question 6 of the order, I felt that we would have a valid comparison if we made the forecast study and the actual studies on the same basis, and followed the manner that I had originally calculated the estimated rate of return for this business back in 1946 and 1947.

Presiding Examiner: Was that depreciated rate base used in Exhibit 19?

The Witness: A depreciated rate base was used in Exhibit 19; yes, sir.

Presiding Examiner: How did you obtain the figures for that?

The Witness: We made an estimate of the depreciation reserve for the year 1952 for that.

Presiding Examiner: In other words, they were not figures on the books?

The Witness: No, sir.

By Mr. Searls:

Q. In your opinion, then, although the undepreciated rate base method which you have used might not be acceptable from the Commission staff's point of view for deter-

[1215]

mining the // actual amount of rate of return, in your opinion is that a reasonable method for making the comparisons which you have presented in Exhibit 35, (revised)? A. Yes, sir.

Q. I would like to ask you to turn to page 32 of Exhibit 35 (revised) and ask if on that page you have developed a net work cost for Pacific Gas and Electric Company net work for the years 1946 to 1952, inclusive? A. Yes. These are the costs for the capital and the annual cost thereon for Pacific Gas and Electric Company's integrated net work up to primary substation input.

It is similar to the development made in Exhibit 4 except that a 5.5 percent rate of return has been used here, there is no amount included for amortization of acquisition adjustment, and depreciation annuity was that actually used each year, that is, we have a five percent sinking fund depreciated rate in all years except 1952, which is on a four percent sinking fund rate.

Q. Now, on page 31 of Exhibit 35 (revised) is the allocation of the net work cost to Sierra Pacific given? A. Yes, the development for the units used in a sinking net work cost to Sierra are developed on page 31.

Q. What is the basic approach you have used in making this allocation? A. The basic assumption is of a forty per-

[1216]

cent to demand // and sixty percent to energy allocation.

Q. Why have you used this forty percent-sixty percent differential? A. Well, in general it is an approximation of the ratio of demand related cost and energy related cost which has been used for many years by the company and is frequently used by engineers in this field. It was assumed primarily for convenience and I feel will give a valid comparison for the purpose determined.

Q. So far as you are aware is this forty percent-sixty percent method one that would be acceptable to the Commission staff? A. Yes, I believe it would.

I might add that this forty-sixty percent relationship is applied to the total cost which include return and income taxes which the staff, I understand, would allocate on a fifty-fifty basis.

Presiding Examiner: You considered with the staff the data found in Exhibit 35 (revised) before you filed it, didn't you, Mr. Roberts?

The Witness: Yes, I did.

Presiding Examiner: That is how you know it will be acceptable?

The Witness: That is correct.

[1217]

By Mr. Searls:

Q. I think in fairness to the staff it is true that the full details were not discussed with them; is that correct? A. That is correct. We discussed the general method that we might use in approaching this problem.

Q. Your endeavor throughout in deriving these rates of return, Mr. Roberts, has been to secure figures that in your opinion could be validly compared, was it not? A. That is correct.

Q. In using the forty percent-sixty percent basis, do you mean to imply that any one item of operating expenses is allocable in that proportion? A. No, I do not. I simply assumed that in toto the cost would fall approximately forty percent to demand and sixty percent to energy, had we followed the normal procedure that the staff follows in assigning cost to demand and energy.

Q. Now, on lines 9 to 15, page 31, of Exhibit 35 (revised), you develop the unit cost per kilowatt-month for your demand allocation? A. Yes, I do.

Q. And what do the figures on line 15 of that page represent? A. These are the units in dollars per kilowatt-month.

[1218]

of the Pacific Gas and Electric Company integrated net work.

Q. Integrated net work cost, you mean? A. Cost, yes.

Presiding Examiner: Including return and taxes?

The Witness: Including return and taxes; yes, sir.

By Mr. Searls:

Q. What is derived on lines 16 and 17 of this page?

A. On lines 16 and 17 the development of unit cost in mills per kilowatt hour is derived.

Q. And the figures on line 17 represent mills per kilowatt hour? A. Yes, they do. Those are the mills per kilowatt hour for each year which include the energy related cost of Pacific Gas and Electric Company's integrated net work.

Q. Now, on lines 1 to 8 of page 31 of Exhibit 35 (revised), do you show your units for allocation of capital from the integrated net work? A. Yes, lines 1 to 8 inclusive develop the unit cost, splitting the net work capital fifty percent to demand and fifty percent to energy.

The figures in line 7 are the dollar amounts per kilowatt month representing fifty percent of the capital while line 8 shows the amounts for the energy allocation portion in mills per kilowatt hour.

[1219]

Q. Why did you choose this fifty-fifty allocation? A. I used the fifty-fifty basis to follow the Commission's precedent which allocates return fifty percent to demand, and fifty percent to energy.

And it was assumed that the appropriate allocation of capital on which the return would be calculated would be on the same fifty-fifty basis.

Q. Now, I believe earlier in your testimony you referred to the fact that certain capital is allocated directly to service to Sierra Pacific. Where is that capital shown? A. That capital is shown on page 29.

Q. Is that capital developed on page 33 of Exhibit 35 (revised)? A. Yes, it is. Page 33 develops the capital for each of the years involved, showing the amount which is included in the figures up to primarily sub input and

also the distribution figures consisting principally of metering equipment.

Q. How do these figures compare with those in Exhibit 4 in this proceeding? A. These are the facilities which were included in Exhibit 4 as special facilities directly allocable to Sierra.

[1220]

The amounts for 1952 are identical with those // developed by Mr. Barton in his Exhibit 3 in this proceeding.

Q. Now, is the cost of the 110 thousand volt transmission line from Drum to Summit included in these figures? A. Yes, it is, for the years during which it was operative.

Q. How much of that cost is included in the figure for 1949? A. I have 69/365ths of the cost in the year 1949 since that is the number of days the 110 KV line was operative in 1949.

Q. What date did that line become operative in 1949? A. October 23, 1949. It is in for the full year for each of the following years.

Q. The entire cost of that line? A. The entire cost of the line.

Q. Is any cost of that line in for the year 1948? A. No.

Q. Now, you will recall that previously in this proceeding there was testimony with respect to recoppering of the two sixty thousand volt lines from Drum to Summit. Is any of the cost to that recoppering included in these figures? A. Yes, the cost of recoppering the lines is

[1221]

included // in the figures.

Q. That is from 1948 right on through? A. Yes, sir.

GEORGE G. DEVORE was called as a witness, having been previously sworn, was further examined and testified as follows:

Cross-examination

By Mr. Wahrenbrock:

* * * * *

[989]

Q. But I don't understand that you have answered my question. You still haven't said upon what basis you determined cost of power under the Bureau of Reclamation

[990]

alternative, if that were adopted, for that alternative, from and including 1948 through 1951. A. It was the average of these two years that I determined the difference in cost for the two sources of power. Power was not available from the Bureau of Reclamation prior to 1952.

* * * * *

[991]

Q. Now let me ask what the problem was. You computed estimated Sierra Pacific's load growth and during the years 1948 to 1951 inclusive, Sierra Pacific's power requirements would have exceeded the maximum which it could produce and purchase under the Pacific Gas and Electric contract, is that not correct? A. That is correct.

* * * * *

[1002]

Q. Your company could not risk such a deficiency be-

cause that would disable it from performing its utility obligations, is that correct? A. That is right.

* * * * *

[1023].

Mr. Wahrenbrock: Mr. Examiner, I am able to announce the terms of a further stipulation.

> The parties stipulate for the purposes of this proceeding only that, if called, duly qualified Commission staff experts would testify that, assuming the correctness of the data reflected in Exhibit 19 in the manner explained by Mr. Roberts and assuming further that the same rate of return which is reasonable for the electric department of Pacific Gas and Electric Company on a net investment rate base, as heretofore stipulated, is reasonable for that company's sale to Sierra Pacific Power Company on a corresponding base, upon the facts disclosed in the record and for the purposes of this proceeding the method employed in Exhibit 19 to develop cost of service and rate of return as of 1952, in their opinion, is reasonable and proper and in accord with applicable Commission precedents, this stipulation being without prejudice to the right of Sierra Pacific to contend that such facts are not relevant or material to any issue in this proceeding.

Presiding Examiner: Do all counsel agree to that?

Mr. Chanler: We agree to that stipulation.

Mr. Searls: We agree to that stipulation.

* * * * *

[1025]

By Mr. Searls:

Q. Mr. Devore, was it not a fact that Sierra Pacific Power Company, in the latter part of 1947 and the early part of 1948, prior to the execution of the 1948 contract, was faced with the unescapable fact that it would have to commit itself to a substantial expenditure or undertaking

[1026]

of some kind, whatever method it used to assure itself of an adequate supply of power for the future? A. Based on the assumption that the Pacific Gas & Electric Company would make available more capacity at the Donner Summit that would follow.

Q. That was true, too, with respect to your assumption that the Bureau of Reclamation power would be delivered to Sierra Pacific at any of the locations you have mentioned? A. That is also true.

* * * * *

EXCERPTS FROM ORAL ARGUMENT BEFORE FEDERAL POWER COMMISSION IN DOCKET E-6482 ON JULY 22, 1953

[1187]

REBUTTAL ARGUMENT ON BEHALF OF PACIFIC GAS AND ELECTRIC COMPANY BY MR. SEARLS

Mr. Searls: May it please the Commission: I would like to refer briefly to the matter of the 5.5 per cent return, and the matter of the rate of return for this Sierra business.

The present rate which is now in effect was adopted because it was a general rate level for resale customers under five-year contracts. The proposed rate will yield 4.75 per cent. Neither rate was designed to yield any particular return.

[1188]

The proposed rate, like the original rate, is proposed because it is essentially the same as rates to other resale customers. The California Commission has found that an increase in the P-31 rate from the 1948 rate to the level we propose for this Sierra business is appropriate. Whatever the California Commission may have thought was a proper return for that kind of business in 1948, it now thinks is not adequate in 1952, and has authorized the rate for intrastate business which we are requesting here.

• • • • •

rendering of service by Pacific Gas and Electric Company to Sierra.

Q. How does this principle which you have followed compare with that used in Exhibit 4 in this proceeding? A. The method followed in this exhibit parallels that of Exhibit 4. It was needed to segregate the special facilities, particularly in this study, since at the time of entering into this contract with Sierra Pacific, Pacific Gas and Electric Company was deciding whether or not to build transmission facilities to serve Sierra. They were to take off from the integrated net work and add a rather

[1209]

extensive transmission line for this service.

Q. Where does this transmission line to which you have just referred run? A. It runs from Drum power house substation to Summit.

Q. What is the voltage of that line? A. The voltage of the line in question at the time of making this contract was 110 thousand volt line.

Q. This line was not in existence at the time the contract was made, was it? A. No, it was not.

Presiding Examiner: You are referring to the 1948 contract?

The Witness: Yes, sir.

By Mr. Searls:

Q. Is that 110 thousand volt line from Drum to Summit used for any other purpose other than delivering power to Sierra Pacific Power Company? A. No, sir.

Q. Now, how does this method of determining cost compare with that used in Exhibit 19 in this proceeding? A.

In Exhibit 19 the need was to determine the actual rate of return to the company with the facilities all in place. In that exhibit the transmission facilities were lumped

[1210]

together with Pacific Gas and Electric Company's // integrated net work and treated as a unit.

Presiding Examiner: May I ask there, Mr. Roberts, whether Exhibit 19 was prepared according to the ideas of Pacific Gas and Electric Company?

The Witness: No, Exhibit 19 was prepared at the request of the staff to follow its principles.

By Mr. Searls:

Q. It is a fact, is it not, that the reason, as you understood it, why the transmission lines serving Sierra were lumped in with Pacific Gas and Electric Company's integrated net work in Exhibit 19 was because it was not practical to make a study eliminating other fringe lines which the Commission staff felt should be eliminated from the work if the Sierra line was to be eliminated? A. That is correct. Since the inclusion of those minor fringe lines other than Sierra's will not distort the comparison of one year to another, I felt it unnecessary to attempt the arduous task of eliminating from the integrated net work these minor lines which serve other customers entirely within Pacific Gas and Electric Company's territory.

Q. Would it not be correct to say that while the staff's objection to Exhibit 4, so far as the allocation of these Drum-Summit lines to Sierra is concerned may have affected the rate of return derived, that objection would

I might say that the recoppering was done in 1947. Where I have used 1946 cost as the basis of an estimate, I have included the cost of the recoppering of those lines.

Q. So for comparative purposes you have assumed throughout that those lines were recoppered before 1946? A. That is correct.

Q. Now, turning to the costs which are allocated directly to Sierra Pacific, are those also derived on page 33 of Exhibit 35 (revised)? A. Yes, they are. At the top of the development there, under "Annual cost", the amounts to primarily sub input are the amounts which are included in total Pacific Gas and Electric Company net work cost up to primarily sub input.

The second group "Distribution costs" are those relating to the maintenance and operation of the distribution facilities and the commercial costs, billing, collecting.

Q. Then is the third group of cost figures on that page under the heading "Total special facilities" the sum of the two preceding groups? A. Yes, it is.

[1222]

Q. Will you explain in brief how these costs were // determined? A. Yes. Mr. Barton in the development of Exhibit 3 developed average cost for the five years covered in this study. I used his basic figures appropriately trended by the use of the Pacific Gas and Electric Company labor indices to show these costs for each of the five years here shown, 1952 back through 1948.

Q. Now, is your derivation of actual rates of return completed on page 29 of Exhibit 35 (revised)? A. Yes, it is.

Q. Does line 5 of page 29 represent the portion of net work capital allocated to Sierra on a demand basis? A. Yes, it does.

Q. Does line 6 represent the portion of net work capital allocated to Sierra on an energy basis? A. That is right.

Q. Does line 7 represent the capital directly allocable to Sierra as developed on page 33 of Exhibit 35 (revised)? A. Yes, these are the special facilities developed on page 33.

Q. Then does line 8 represent the sum of the three preceding lines giving the total capital to serve Sierra? A. Yes, it does.

Q. Does line 13 on page 29 of Exhibit 35 (revised)

[1223]

represent the allocation of the net work demand cost to Sierra? A. Yes, it does. That is the amount on line 11 for each year multiplied by the kilowatt-month sales to Sierra on line 2, a resulting multiplication is shown on line 13 and is the allocated amount of system net work capital allocated to Sierra.

Q. On line 14 have you shown the net work cost allocated to Sierra on an energy basis? A. Yes, I have. That is the unit cost on line 12 for each year multiplied by the amount of sales to Sierra in kilowatt hours shown on line 1.

Q. Do the figures on line 15 represent costs related to the special facilities as derived on page 33 of Exhibit 35 revised? A. Yes, they do.

Q. Does line 16 represent the return and income tax on the capital in the special facilities? A. Yes, that is the composite rate for five and a half percent return and income tax multiplied by the capital of the special facilities shown in line 7, as I had not previously developed the return and tax for these special facilities.

Q. The total cost given on line 17 consists of the sum

[1224]

of the figures on which lines, Mr. Roberts? // A. The figures shown on line 17 are the sum of the figures shown on lines 13, 14, 15, and 16.

Q. What does line 18 represent? A. Line 18 is the amount for five and a half percent return and tax on all the capital allocated to service to Sierra, that is, the capital shown on line 8.

It was necessary to deduct the amount for return and tax in this calculation in order to see the amount that was remaining for return and tax from this service.

Q. On lines 19 to 24, inclusive, of this page 29 do you derive rates of return for service to Sierra under the FPC No. 3 rate? A. Yes, I do.

Presiding Examiner: You mean that is the present rate?

Mr. Searls: That is the present rate, Mr. Examiner.

* * * * *

[1225]

Q. Now, of the years shown on page 29 in this derivation of rates of return was there any income tax to be taken into account? A. In none of the years shown under FPC 3 was there any income tax taken into account because the rate of return was below that on which income tax would be paid.

Q. What does line 19 represent? A. Line 19 is the excess of cost over revenue, that is, the amounts shown in line 17 less the amounts shown in line 9, revenue, under the FPC rate No. 3.

Q. How are the amounts in line 20 determined? A. The amounts in line 20 are developed by taking the revenue in line 9, deducting therefrom the total cost in line 17 and adding back the amount in line 18.

Q. How is the percentage shown on line 21 derived? A. The percentage on line 21 is the amounts shown in line 20 divided by the total capital to serve Sierra shown on line 8.

Q. On lines 25 to 30, for the 1952 column, what have you shown? A. Lines 25 to 30 develop the rate of return under the proposed rate of FPC 3, supplemental 4, which

[1226]

is now being // collected under bond.

Q. Not under bond, Mr. Roberts, just subject to refund? A. Pardon?

Q. How are the figures on line 25 determined? A. Line 25 is the excess of the cost over the revenue and the amount shown on line 17, total cost, less the amount shown on line 10, the revenue under the proposed rate.

Q. How are the figures on line 26 determined? A. Line 26 is the amount remaining after deducting from the revenue on line 10 the total cost shown on line 17 and adding the amount shown on line 18.

Q. What do the percentage figures in line 27 represent? A. These are the percent figures available for return and income tax on the service to Sierra under the proposed rate.

Q. What is the actual derivation of those figures from other exhibits? What other figures are used in this table to derive those percentages? A. Those percentages are derived by dividing the figures on line 26 by the total capital to serve Sierra shown on line 8.

[1227]

Q. Just in brief, how is the amount for taxes and // income determined in line 28? A. ~~Line 28, taxes~~ and income, is derived by formula following the percentages of income tax that Pacific Gas and Electric Company would pay under various rates of return.

Q. Is that formula based on the actual income tax calculation used for the year 1952 for Pacific Gas and Electric Company? A. Yes, it is.

Q. Does it allocate to this service an appropriate portion of the income tax credits that are used in computing the company's income tax? A. Yes, it follows that calculation exactly.

Presiding Examiner: What do you mean by appropriate?

The Witness: That is the amount of income tax that the company would have paid had it earned a 4.06 percent rate of return.

By Mr. Searls:

Q. Now, the figures on line 29 represent the difference between line 26 and line 28? A. Yes.

Q. How is the percentage on line 30 related to the other figures shown there? A. The percentages on line 30 are the amounts on line 29 divided by the total capital to

[1228]

serve Sierra shown on // line 8.

Q. Now, it is obvious, of course, that the columns on this page 29, headed "1956" and "1963" are forecasts. Is that not true, Mr. Roberts? A. Yes, that is correct.

Q. What basis did you use for the forecast represented in those columns? A. I assumed unit net work costs as experienced in the year 1952 for the integrated net work.

In the special facilities I included a second 110 KV line in operation during both the years 1956 and 1963.

Q. On the basis of your investigation of the requirements for service to Sierra and after consultation with other engineers of Pacific Gas and Electric Company, is it your opinion that a second 110 thousand volt line will be required by 1956? A. Yes, sir.

Q. Do you know what basis was used for determining the cost of such a second line? A. The cost of such a line was determined on the basis of 1952 present-day costs.

Q. Is it related to the cost of the existing 110 thousand volt line? A. Yes, it is. The cost of that line as it would be built at this time.

[1229]

Q. Now, the rates of return on lines 24 and 30 of page 29 are carried forward to page 3 of this Exhibit 35 (revised), are they not? A. Yes, they are.

Q. They appear in columns 2 and 3 of that page? A. That is correct. Column 2 represents the amount of return for each of the years for the actual 1948 to 1952, inclusive.

Q. And all of these figures in columns 2 and 3 correspond exactly with those on page 29, do they not? A. Yes, they do.

* * * * *

[1231]

Q. Will you turn, Mr. Roberts, to the table in Exhibit 35 (revised), entitled "Forecast cost of service", and can you state in general how the derivation of the forecast rates of return in this section of the exhibit compares with

1231

the derivation of the actual rates of return in the section of Exhibit 35 (revised) entitled "Actual cost of service"?

Presiding Examiner: That forecast being as of 1947?

Mr. Searls: Yes, Mr. Examiner.

The Witness: The development of this forecast follows exactly the method of that followed in the actual.

By Mr. Searls:

Q. And have the methods followed by you been such that the comparison between the 1947 forecast and the actual figures will be a valid comparison? A. Yes, each

[1232]

and every year will be a valid comparison, // the forecast with the actual.

Presiding Examiner: Was this forecast made up entirely by you, Mr. Roberts?

The Witness: Yes, it was.

As a matter of fact, I have the figures available that I actually made at the time of negotiation in this contract from which I took the basic date for the development here.

By Mr. Searls:

Q. Were the figures used for sales to Sierra, which appear in lines 1 and 2 of page 36 of Exhibit 35 (revised), taken from an estimate that was made by you or by others in Pacific Gas and Electric Company about 1946 or 1947? A. Yes, they were.

Q. Were these kilowatt hour figures on line 1 actually

found by you in the earlier estimates? A. Yes, they were. The estimates were made graphically on a chart. Some of the years were actually recorded. Those that were not recorded I took directly from the chart showing the entire estimate.

Q. Can you state whether those estimates were based to any extent on information supplied by Sierra Pacific Power Company? A. Yes, we had their estimates of expected load and deducted therefrom their anticipated gen-

[1233]

eration, which // resulted in the amount that Pacific Gas and Electric Company was expected to supply for these years.

Q. Are the kilowatt-month figures shown on line 2 of this page 36 taken from the earlier estimate? A. The maximum demands for each year were plotted and a factor was applied to those demands. To obtain the kilowatt months I used the same factor that had been used in the original estimate to obtain the intervening years which were not actually shown on the tabulation in the original estimate.

So that essentially this is the amount of kilowatt months that have been developed for each of these years, using the basic estimate of 1946 and 1947.

Q. How did you derive the revenues which you used in developing this forecast? A. I derived the revenues by applying the FPC 3 rate to the kilowatt hours and kilowatt months here shown.

Presiding Examiner: The contract rate?

The Witness: The contract rate.

By Mr. Searls:

Q. How did you derive the net work capital for each

of the years for use in this forecast?. A. The net work capital units were derived as shown on page 37 by using

[1234]

the figures which were then // available in making the forecast of the actual 1946 capital amounts at primary substations input. I followed exactly the method used in allocating system net work capital used in the development of the actual rates of return.

Q. Then your method was to develop units of capital per kilowatt hour and per kilowatt month, based on 1946 figures; is that right? A. That is correct.

Q. And those units were then used in developing figures for each of the subsequent years? A. Yes.

Q. Now, what method did you use for deriving net work cost for use in this forecast? A. Net work costs were developed by taking total net work cost for 1946, splitting them forty percent to demand and sixty percent to energy, and then increasing those units by ten percent to obtain units per kilowatt month and units per kilowatt hour for the forecast.

Q. Now, are the actual 1946 net work costs shown on page 32 of this Exhibit 35 (revised)? A. Yes, they are.

Q. And you applied a ten percent increase to the costs which you found were actually experienced in 1946? A. Yes, that is true.

[1235].

Q. How were return and income tax found for this forecast? A. Return and income tax is the amount of the return and tax which actually was paid in 1946.

Q. Was the amount of return related to the 1946 capital? A. Yes, it was.

Q. And income tax related to that return was based on 1946 rates? A. Yes, sir.

Q. And also on the Company's 1946 income tax calculation? A. Yes, sir.

Q. Will you state why you used 1946 costs and capital as your base in making this forecast? A. 1946 costs were used because no later data were available at the time we assumed this study was made. The actual studies were made for management in 1946 and 1947.

Q. What part of 1947? A. The final commitment to the FPC rate was made in October 1937.

Q. Were the studies for management made prior to that time? A. Prior to that time, yes.

[1236]

Q. Can you state how much prior the actual studies were made? A. We started the studies I believe the latter part of 1946 and made intermediate studies between then and October 1947.

Q. Were any unit costs for Pacific Gas and Electric Company's system for 1947 operations available to you prior to October 1947? A. No, they were not.

Q. Normally when would unit cost for any year of the company's operation be available for a calculation such as you have made in this Exhibit 35 (revised)? A. We attempt each year to complete our allocation of net work cost by the latter part of March or early April of each year.

Q. Now, you have referred to a ten percent increase as shown on page 37 of Exhibit 35 (revised). That increase was applied to net work cost including return and tax, was it not? A. Yes.

I might say that in our original study we had assumed

no such increase, followed our usual procedure of current cost and assuming that they would hold, not knowing whether the costs would go up or would go down.

Q. Have you made some investigation to determine

[1237]

whether // any rising trend in cost might have been taken into account in 1947? A. Yes. While a lot of the experts seemed to be very uncertain as to the future at that time, from hindsight it appears that such an allowance might reasonably have been considered in view of the rising prices being experienced in 1947.

Q. Now, in your experience with regulatory commission work, is it the practice in rate cases for regulatory commissions to make any allowance for rising price trends? A. No. In my experience in regulatory matters the current prices and costs are usually considered.

Presiding Examiner: And your experience has been with the California Commission primarily?

The Witness: Primarily; yes, sir.

By Mr. Searls:

Q. By current cost you mean costs actually experienced for a prior period of operation? A. Yes, sir.

Q. In your opinion if any allowance was to be made in 1947 for rising prices could such an allowance be determined with any degree of accuracy? A. No, I believe one could not tell at that point just what might happen.

[1238]

Q. In your investigation can you say whether the rising prices experienced in 1947 were expected to continue or to rise further? A. No. To many people in and out of gov-

ernment the rising price level was considered to be part of a postwar boom which was expected to end with a recession in a pattern paralleling the end of the First World War.

In looking back at our estimates then, I considered all these factors and felt that the ten percent figure which I used in this exhibit represents the upper range of what might have been taken into account in 1947.

In fact, it would be more consistent with our own practice to have made no allowance at all and this exhibit may be said to lean over backwards in an endeavor to be fair and reasonable in looking at what I might have seen at that time.

Q. What is the effect on the comparison of including a ten percent increase in cost in your forecast? A. In including a ten percent increase, costs are higher of course, which would make the forecast rate of return lower than would otherwise have been shown.

Q. Turning now to the capital and the costs related to the special facilities which are allocated directly to Sierra by your study, how did you determine the figures to be

[1239]

included for that purpose? // A. First taking the allocation of system capital, I used the units developed—

Q. Excuse me. I was asking about the capital related to the special facilities? A. Pardon me. The capital related to the special facilities was taken from the estimates actually made at the period of negotiation, and here again I took the capital amounts from the 1946 figures which were actually prepared at that time.

Q. I believe you have already mentioned, have you not, that your 1946 figures for the special facilities include the cost of the recoppering which was actually done in 1947?

A. Yes, sir; we had the knowledge that the coppering was actually in progress and I took that into account as the taking off point for the estimate.

Q. Did you assume any particular date for the operation of the new 110 thousand volt line in your forecast study? A. In my forecast I assumed no particular operating date, but assumed that it would be in in full after the year 1949 and approximately three months in the year 1949.

Q. Did the estimates which were made in 1946 and 1947, to which you have referred, include the basic figures for sales for running out to the year 1963? A. Yes, they did.

[1240]

The estimates were projected to // that year as being the termination date of the contract.

Q. Turning to page 36 of Exhibit 35 (revised), are the derivations of capital and costs of service made by the same methods as in your study of actual cost of service, but using these units based on 1946 figures as adjustments as you have described? A. Yes. The method follows exactly that used in the development of actual rates of return.

Q. The adjustment to which I referred is the ten percent adjustment. That is what you had in mind, is it not? A. Yes, sir.

Q. And are these forecast rates of return given on line 19 of page 36? A. Yes, they are.

Q. Have those figures been carried forward in this Exhibit 35 (revised), to the summary sheet on page 3 of the exhibit? A. Yes, they have, and appear in the column No. 1, "Forecast as of 1947 at the present rate".

Q. Although you have not actually shown the deriva-

tion in this exhibit, have you made a calculation for the year 1947 paralleling in all respects the one you have just described, so as to determine a forecast rate of return

[1241]

for 1947? // A. Yes, I have.

Q. What is that figure? A. The rate of return for 1947 on the same basis was 3.56 percent.

Mr. Chanler: Where does that appear?

Mr. Searls: That does not appear in this exhibit. I was asking him if he had made a calculation for 1947.

By Mr. Searls:

Q. If you had included a line on this page 3 for the year 1947, would not that figure 3.56 be opposite 1947 and at the head of column 1? A. Yes.

Mr. Chanler: May I clarify something here? When do I understand the witness made this forecast for 1947?

The Witness: I just recently made the calculation, using the same basic data used in the forecast for the other years.

Mr. Chanler: So your testimony is that as of today you estimate that your forecast for 1947, using the same basis as the other forecast in this exhibit, would have shown a return in 1947 of how much?

The Witness: 3.56 percent.

Mr. Chanler: That is at 3.56?

The Witness: Yes.

[1242]

Mr. Chanler: That is at FPC No. 3 rate?

The Witness: Yes.

Mr. Chanler: And what was the return for that year?

The Witness: The actual return in that year was 2.47 percent.

Mr. Chanler: Was that 2.47 at FPC No. 2 or No. 3?

The Witness: No. 3.

By Mr. Searls:

Q. So that is actual results adjusted to FPC No. 3? A. Yes, sir.

Q. Because FPC No. 2 was actually in effect for 1947, was it not? A. That is correct.

Q. Now, just to complete the picture—

Mr. Journey: Does that 2.47 appear anywhere in this revised 35?

Mr. Searls: No, it does not.

Presiding Examiner: As I understand the witness, these computations for 1947 which do not appear on page 3 have been made by him quite recently, using the same data as he has used in Exhibit 35 (revised) for the years 1948 through 1952.

The Witness: That is correct.

[1243]

By Mr. Searls:

Q. Now, to complete the picture, can you state—well, let me refer to page 6 of Exhibit 35 (revised) and I will

ask if in the bottom line on that page, under column 2, is given the rate of return for 1946 based on actual results, but adjusted to the FPC No. 3 rate? A. Yes.

Q. What is that amount? A. That amount is 3.85 percent.

Presiding Examiner: Shown at the bottom of page 6.

The Witness: Yes, sir.

* * * * *

[1249]

Q. In general, can you describe the results shown by this summary on page 3 of Exhibit 35 (revised), and on Exhibit No. 39? A. Yes. The return experienced in every case has been lower than the forecast.

Q. In your opinion, will the proposed rate give a return materially higher than that forecast? A. No, the proposed rate will not give a return materially higher than the forecast even after allowing for a ten percent unit cost increase in the forecast.

Presiding Examiner: What do you have in mind as material?

The Witness: The slight difference between the rate of return as shown in the forecast and the amount shown by the graphic presentation.

Presiding Examiner: On Exhibit 39?

The Witness: On Exhibit 39.

Mr. Chanler: To keep the record clear, if I may again interrupt for a moment, when you say forecast you don't mean any actual forecast that was made in either 1946 or 1947, do you?

The Witness: No. I mean a forecast looking forward as of now and the '52 is the actual figure calculated on the proposed rate.

[1250]

Mr. Chanler: When you say forecast as of 1946, 1947, and 1948, you mean what you now say you think you would have forecast at that time.

The Witness: The forecast as of 1947 is a development of a method which I have described, that I feel is a fair presentation of that which we might reasonably have seen at that time, and follows the basic data of the studies made during that period, as I have explained.

By Mr. Searls:

Q. In your opinion, what is the primary factor which accounts for the difference between the 1947 forecast of rates of return and the rate of return actually experienced? A. The primary factors are the increased costs experienced in labor, fuel, and other materials, together with the very marked increase in taxes.

Q. Have you presented in Exhibit 35 (revised), any figures to show these increases which you have just referred to? A. Yes. Under the tab of "Trend of cost", pages 40 through 47, inclusive, list the major items of cost which have increased substantially from 1946 through 1952.

Q. Now, can you state what has been the actual experience with respect to Sierra's load factor over the period

[1251]

which you have studied in this Exhibit 35 (revised)? // A. There has been a general improvement in the load factor of Sierra.

Q. Does an improvement in load factor generally mean a reduction in average unit cost? A. Yes, it does, and this improvement in load factor has offset some of the increased costs, but the improved load factor was also responsible for a reduction in the average revenue of even greater magnitude.

Mr. Journey: By load factor, you mean Sierra's load, the load factor on their purchase and not their system load factor?

The Witness: Yes, I do. The load factor of their purchase is a reflection of their system load factor, but their generation being a fixed amount becomes a less and less percentage of the total amount of capacity and energy required by Sierra.

By Mr. Searls:

Q. Are the annual load factors given on page 13 of Exhibit 35 (revised)? A. Yes, they are.

Q. And are load factors based on kilowatt-months given on page 15 of that exhibit? A. Yes.

Q. And do those pages to which I have just referred

[1252]

show the improvement which you have mentioned? // A. Yes, they do.

The improvement is shown by the greater amount in the later years.

Presiding Examiner: Mr. Roberts, how do you derive the figures in the first column on page 13 for the years 1948 through 1952 headed "Forecast as of 1947"? Do you mean that back in 1947 you forecast those present load factors?

The Witness: Yes, sir; these figures were derived from the forecast of kilowatt and kilowatt hours actually made at that time. We had a projection of their expected load in kilowatts and in kilowatt hours. It was simply a mathematical calculation, taking the kilowatt hours divided by the number of hours in the year and dividing that by the kilowatts—

Presiding Examiner: What I mean is that you actually did it back in 1947?

The Witness: Yes, sir.

By Mr. Searls:

Q. Are the kilowatts maximum annual demand as forecast in 1947 given on page 11 of this Exhibit 35 (revised)? A. Yes, they are.

Q. And are annual purchases of Sierra in kilowatt hours given on page 12 as forecast in 1947? A. Yes.

Q. And then the percent load factor shown on page 13

[1253]

is derived from those figures as you have just described; is that correct? A. That is correct.

Mr. Chanler: So that pages 11, 12, and 13, columns marked "Forecast" all refer to actual forecasts made in 1947?

The Witness: Yes, sir.

By Mr. Searls:

Q. On page 14 you have a column "Forecast as of 1947". What do those figures represent? A. Those represent the kilowatt months as developed from the forecast actually made in 1947.

Q. Was that made by using factors which were actually determined in 1947? A. Yes, sir.

Presiding Examiner: What is that?

(Record was read by the reporter.)

Presiding Examiner: Those figures on page 14 literally are the sum of monthly maximum demands?

The Witness: Yes. We got at that in this way: I might explain—the basic estimate was a maximum demand.

Presiding Examiner: That was the forecast back in 1947?

The Witness: 1947, maximum annual demand. At that time the kilowatt months amounted to 9.2

[1254]

times the annual // maximum as developed from the previous record of Sierra.

We had that figure in evidence for the years that were actually calculated. We only got spot years in our forecast.

I used the same factor to develop the intervening years which are shown here, following exactly the method and getting the results which would actually have been obtained from my forecast at that time.

Presiding Examiner: Of course, the last column of actual are figures that were supplied as time went on?

The Witness: That is correct.

By Mr. Searls:

Q. And then the percent load factor shown on page 15 are derived from the relation between the monthly maxi-

mum demand shown on page 14 and the sales and kilowatt hours on page 13; is that correct?

Mr. Journey: Will you explain how you got that?

The Witness: Yes, sir. The load factors on page 15 represent what might be termed an average monthly load factor. We have taken the annual kilowatt hours, divided by the number of hours in the year, divided that by the kilowatt months divided by twelve, the number of months in the year.

Presiding Examiner: Now, what is the difference in those two columns on page 15, one of which is

[1255]

headed // "Actual", and the other is "PG&E actual"?

The Witness: The column headed "PG&E actual" is the load factor for the total Pacific Gas and Electric Company system.

Presiding Examiner: I believe you have already stated, Mr. Roberts, that an improved load factor was responsible both for a reduction in average cost and a reduction in average revenues.

The Witness: That is correct.

By Mr. Searls:

Q. I would like to ask if the improvement in Sierra's load factor of purchases from Pacific Gas and Electric Company was greater in actual experience than that forecast? A. Yes, it was.

Q. Did you make a study to determine what effect that improvement had upon the rate of return from service to Sierra? A. Yes, I have. The results of that study are shown on page 8 of Exhibit 35 (revised).

Q. What assumptions did you make in that calculation on page 8? A. I assumed that the sales were as forecast in 1947, that capital was that actually experienced in 1952, and the operating expenses were those of actual 1952.

In other words, I assumed all conditions as they are

[1256]

today // except the sales which I assumed were as in the 1947 forecast.

Q. But in using operating expense, for example, in allocating net work cost for the purpose of this calculation, you mean you used the same unit of operating expense that you developed from your actual 1952 study? A. That is correct.

Q. But you actually applied that unit to the forecast demand in kilowatt months and the forecast sales in kilowatt hours rather than the actual? A. Yes, sir.

Q. So that the dollars of operating expense that you have shown in this calculation are not nearly as much as the dollars of operating expense allocated in your study of 1952 actual results? A. No, they are the amounts that would have resulted had the sales in 1952 been as forecast in 1947.

Q. Can you say the same with respect to the calculation of net work capital? A. Yes, sir.

Q. What was the result of this calculation on page 8? A. Page 8 shows that if the sales had been as forecast with the lower load factors, the rates of return would have been slightly higher, that is 1.26 percent, as shown on line 19 of this page, as compared with the actual

[1257]

return of 1.23 percent, a difference of about .03 percent.

Q. Is the 1.23 percent to which you have referred the

actual figure for 1952 shown on page 3 of Exhibit 35 (revised)? A. Yes, it is.

Q. So in effect, although the load factor was actually higher than forecast, the effect of the higher load factor appears from this calculation to have been to reduce slightly the rate of return? A. That is correct.

Presiding Examiner: How do you make that conclusion?

The Witness: I come to that conclusion by determining the rate of return that would have been experienced had the sales been as forecast, that is, on a lower load factor basis.

By Mr. Searls:

Q. And you find that that return would have been slightly higher? A. That is correct.

• • • • •

[1259]

Q. I would like to refer you to page 10 of Exhibit 35, revised, Mr. Roberts, and ask you what the figures on that page represent. A. The figures on this page 10 of Exhibit 35, revised, show the average revenue per kilowatt hour, in mills per kilowatt hour, sold under present rate FPC number three, both for the forecast as of 1947 and the actual for each year.

Q. Are the revenues from which those figures are derived shown on page 9? A. Yes, they are.

Q. And the kilowatt hours appear on page 12, do they not? A. Yes, they do. The dollars of revenue divided by the kilowatt hours produce the average revenue per kilowatt hour as shown on page 10.

Q. Did you make a calculation to attempt to isolate the

[1260]

effect of increased capital cost in actual experience // over the forecast as of 1947? A. Yes, I did.

Q. Is that calculation made on page 17 of Exhibit 35, revised? A. Yes; that calculation is shown on page 17.

Q. Will you state what assumptions are made in that calculation? A. The assumptions in this calculation are that the sales were as actually experienced in 1952 but that unit capital was on a 1947 forecast basis and operating expenses were as experienced in 1952.

Q. What about expenses directly related to capital? A. Expenses directly related to capital are adjusted to reflect the lesser amount of 1952 capital forecast in 1947 than in 1952 actual capital.

Q. It is a fact, is it not, that the dollars of capital and units of capital costs of service to Sierra were less in the forecast of 1947 than in actual experience? A. That is correct.

Presiding Examiner: May I have that question and answer read back?

(Question and answer read by the reporter.)

Presiding Examiner: Mr. Roberts, in the forecast of 1947, did you not anticipate a considerable outlay for this new contract with Sierra, which is FPC three?

[1261]

The Witness: Yes.

Presiding Examiner: Was that not included in the forecast?

The Witness: Yes. The amount of the forecast of capital, however, was not nearly as great as actually resulted.

Presiding Examiner: As actually experienced?

The Witness: As actually experienced.

Presiding Examiner: Would you have any explanation for that?

The Witness: Yes, we do, particularly with regard to the special facilities we experienced a very great rise in labor cost at that time.

By Mr. Searls:

Q. Are you talking now about the construction of the 110,000 volt line, Mr. Roberts? A. Yes, I am.

Presiding Examiner: That is what I had in mind.

The Witness: In the construction of that line we ran into very many difficulties. One of the greatest was the additional requirement of clearing for the line; the clearing experiences were tremendous, and as a result of a very severe winter, just about the time of the construction of this line, it was decided that a better loading condition should be provided for.

[1262]

The winter was very severe, and more poles and fixtures were included; there was more guying and greater clearing of rights-of-way, all of which added tremendously to the cost of building these facilities.

Presiding Examiner: That was the winter of '47-'48?

The Witness: Yes, sir. The speed with which the line was required took additional crews beyond the facilities that Pacific Gas & Electric Company

had in its camps, and we had to quarter these men in resorts at much greater cost.

* * * * *

Mr. Chanler: Mr. Examiner, I am confused be-

[1263]

tween the // continual use of the words; 1947 forecast seems to be used interchangeably between figures that were actually forecast in 1947 and figures that are contained in your present reconstruction of a hypothetical forecast. I wonder which this is.

The Witness: In the reconstruction of the '47 forecast made for this purpose I used wherever I had available the estimates actually made at the time we were negotiating this contract.

My assumptions as to unit operating cost, as I have explained, were those that we had actually experienced up to that time, certain of those operating costs. Looking back, I see that we were able to have known about certain increases.

I used a factor of 10 percent to increase our '46 experience to account for that, had we been able to foresee at all a continuation of the changes which were apparent in 1947 as late as October.

Mr. Chanler: I am sorry, but to be specific, this forecast here on page 17, you speak of capital, 1947 forecast, is that a forecast you made then or that you make now?

The Witness: This is the forecast as actually developed from the units that we had in 1946.

Mr. Chanler: When did you develop it?

The Witness: The units were actually developed at that time and were here applied to the kilowatts

[1264]

and // kilowatt hours of the sales for 1952, actual. The purpose of this exhibit is to break out the forecast in part. If we had seen the sales which we actually had experienced in 1952 and if we had seen the operating expenses as we experienced in 1952 but had forecast the capitals we did in 1946, this would be the result.

This is an attempt to answer the questions in the original order which required us to break out certain of the factors in the estimate.

Mr. Journey: Are these figures on page 17 unit costs, that are under line 4, 1946 figures adjusted with a 10 percent increase?

The Witness: The capital you will recall was not adjusted by the 10 percent increase. We took the actual unit capital figures as developed in 1946. They are the units of the forecast.

Presiding Examiner: You say in 1946. Your estimate of capital to be expended was way under that which you actually did expend.

The Witness: Yes, sir.

Presiding Examiner: Due in part to some of the reasons given me a few moments ago?

The Witness: Yes, sir.

Mr. Journey: Are these 1946 unit costs that you developed and the demands that were projected

[1265]

at that time in the // materials that you submitted to the staff in accordance with the request of Mr. Wahrenbrock at the conclusion of the hearing?

The Witness: I believe the units were not developed in these data.

Mr. Journey: Does that mean that they were not included but you had them at that time, they were available to you; is that right?

The Witness: Yes. We normally develop a so-called cost of power study in which we break down our total electric department into the various components of production, transmission, and our total to primary substation input.

Now these forecast data were from that development as of 1946 which were the figures that we had before us in making this forecast. In our original estimates, we did not attempt to bring the calculation to a rate of return and, consequently, did not allocate capital to this service.

By Mr. Searls:

Q. Mr. Roberts, you did not make any determination of units in 1946 or 1947 for allocation of capital on the basis used in your forecast here, did you? A. No, not on this basis.

Q. All you are saying is that you used the same basic data in deriving the units you have used here? A. That is correct.

[1266]

Q. Now the figure which appears just under line 4 on page 17, of 9.2471 for kilowatt month, is that unit figure taken directly from page 37 of Exhibit 35, revised? A. Yes, sir. It appears on the right-hand column, the balance system net work under the amount per kilowatt month.

Q. Opposite the amount per kilowatt month, you mean? A. Yes.

Q. Immediately above it is the 21.5912 mills per kilowatt hour which appears also on page 17 at line 5? A. Yes.

Q. Can you state whether in addition to its generating capacity since the war Pacific Gas & Electric Company has relied more on additions to its steam-electric generating capacity or its hydro-electric generating capacity? A. More on its steam-electric generating capacity.

Q. Can you state what general effect that its reliance on steam would have on unit capital cost, assuming that there was reliance on steam generating power as compared with hydro-electric power? A. Actually, if we had been able to develop hydro plants, the capital cost might have been a little greater than the steam-electric cost because of the nature of hydro facilities which require investments in dams and that sort of capital.

However, the steam-electric generating units which we

[1267]

did install were greatly increased capital amounts per kilowatt than steam-electric generating units formerly built. There has been a great increase in unit cost of generating equipment.

Q. But you believe that that cost, the capital cost, might have been still greater if the former ration of hydro-electric plants had been maintained? A. Yes, I feel it might have.

Q. Going back to that 110,000 volt transmission line, can you state approximately how the actual cost of construction of that line compared with the estimate? A. The actual cost of construction of the line was greatly in excess of the estimate for it.

Q. Can you give the amount of the excess in round numbers? A. It was roughly nearly three times as much.

Q. Three times? A. Twice as much.

Presiding Examiner: Aren't the figures given in Exhibit 35, revised?

The Witness: Yes, they are given.

Presiding Examiner: Suppose you find them at this point.

The Witness: The forecast figure shown on page 38 in the last column in the amount of 1153.

[1268]

By Mr. Searls:

Q. What was that amount? A. $1,153,284 is the estimated amount of total special facilities, including the 110 KV line. The comparable figure, the actual, was $1,977,820 shown in 1950.

Q. Where does that appear? A. On page 33.

Q. So that is roughly $800,000 difference? A. Yes. That is approximately the difference in the cost of the line as estimated and actually experienced.

Q. Turning again back to page 17, are the basic figures for sales and operating expense, exclusive of certain indicated items directly related to capital, identical with the figures used in your development of the actual cost of service for 1952? A. Yes, they are.

Q. The only change you have made in making this calculation is with respect to the amount of capital and the certain costs related to capital? A. Yes, sir.

Q. What is the end result of this calculation? A. The end result is a 1.82 percent rate of return if we had assumed the conditions as set forth on page 17.

Presiding Examiner: Now let me see if I understand this. The heading of page 17, capital column

[1269]

on 1947 forecast basis, //, operating expense, actual, 1952, sales actual 1952—now does this mean that sometime in 1953 or early in 1954 you sat down and calculated what expenditure or capital was to have been in 1947? And then using that as your basis you come up and say that in 1952 we have sales and operating expenses of certain amounts so that the result is a net return of 1.82?

The Witness: That is correct, with the understanding that the capital in this calculation is that resulting from applying the units of 1947 to a system net work applied to the sales and demands of 1952, and that the special facilities were those actually forecast as the 1947 estimate.

Presiding Examiner: But this does not mean in 1947 while you were dealing with Sierra you sat down among yourselves and said, "We have to invest so much money and on the basis of Sierra's estimate of the energy they are going to buy and the cost to us of putting in that line we are going to get a net return of 1.82"?

The Witness: No, sir. This simply breaks out for the purpose of answering the question what would have happened.

By Mr. Searls:

Q. In effect then is the difference between this return of 1.82 percent calculated on page 17 and the actual return for 1952 of 1.23 as shown on page 3 of Exhibit 35, revised, accounted for by the difference between capital cost as forecast and capital as actually experienced in 1952?

[1270]

A. Yes.

Q. Return to page 21 of Exhibit 35, revised, please. Will you explain what assumptions you made in the calculations shown on that page? A. On this page we assumed the sales as actually experienced in 1952 and the capital of 1952 actually experienced, but the operating expenses as in the 1947 forecast, developed in the same manner as the other two pages showing the results of the estimate versus the actual of individual items. This shows the amount of reduction in return because of the use of the '47 forecast of operating expenses.

Q. Excuse me, what rate of return does this calculation show on page 21? A. This shows a rate of return of 2.62 percent.

Q. Have you attempted to perform this calculation so that the difference between the rate of return actually experienced in 1952 of 1.23 percent and the result you have on this page is accounted for by the difference between forecast of operating expense and actual operating expense for the year 1952? A. Yes.

Q. It is an obvious fact, of course, that operating expenses actually in 1952 were higher than was forecast? A. That is correct.

Q. And those higher expenses then resulted in the

[1271]

reduction in the rate of return, is that right? A. Yes, from 2.62, as shown in this page, to the actual 1.23 percent.

Mr. Chanler: Again when you say "1947 forecast of operating expense" you mean the hypo-

thetical forecast that you constructed now, do you not?

The Witness: Using the units as developed from the data I had available then, yes, sir.

Mr. Chanler: But no such forecast as this was made in 1947?

The Witness: No such forecast as this, no.

Mr. Journey: Where do lines 8 and 9 come from on page 21?

The Witness: Lines 8 and 9 are a development of the units for allocation of system net work after adjusting the system net work cost for the depreciation, property taxes, insurance, injuries, and damages because of the different units of the expense in connection with capital.

Mr. Journey: Is that development shown somewhere else in here in revised Exhibit 35?

The Witness: I am checking to see if I included that calculation in the adjustment here in this exhibit.

Mr. Searls: I don't believe you did, Mr. Roberts. We will be glad to make our work papers available.

The Witness: That is correct, I did not include

[1272]

that // work paper in this exhibit.

Presiding Examiner: Is your point such that you want to receive their work papers?

Mr. Journey: If it is on the forecast basis I wonder why it is not in the forecast cost of service.

The Witness: In our attempt in developing each one of these various re-estimates, assuming that we had been able to see the actual 1952 in 1947 for

various of the components, I had to assume that if the operating expense had been as experienced in 1947 but that the capital would have increased, I would have applied the units for the cost contingent on that capital to reflect the greater amount of capital actually experienced than in the forecast, to be consistent in holding the various elements to the forecast compared with the actual.

By Mr. Searls:

Q. Is it correct to say that you endeavored to make the expenses for depreciation, property taxes, and insurance, injuries, and damages properly related to the capital which you assumed in this calculation? A. Yes, sir.

Q. You have made a parallel type of computation on page 22 of Exhibit 35, revised. Will you state your assumptions for this computation? A. Yes: In this computation, the sales are as actually experienced in 1952

[1273]

while both the capital and // operating expenses are as in the 1947 forecast.

Q. What rate of return do you find would have been derived if the forecast had held good as to capital and operating expense as you assumed here? A. A rate of return of 2.87 percent.

Presiding Examiner: On 1952 business?

The Witness: Yes.

By Mr. Searls:

Q. Are the results of the studies on pages 8, 17, 21, and 22 brought together in a summary on page 5 of Exhibit 35, revised? A. Yes, they are.

Q. So that the effect of the various factors in isola-

tion, as you have assumed them, may be compared with the actual results and the overall forecast result on that page, may it not? A. Yes, sir.

Q. On page 23 of Exhibit 35, revised, what do the figures represent? A. The figures on page 23 are the cost of service, including operating expense, 5.5 percent return, and taxes on income for the forecast as of 1947 and that actually experienced.

Q. And on page 25 of that exhibit what is shown? A. On page 25 are shown the units resulting by dividing

[1274]

the operating expenses shown on page 23—

Q. You mean cost of service? A. Pardon me—cost of service shown on page 23 by the appropriate kilowatt hours as forecast and as actually experienced respectively.

Mr. Searls: I would like to offer for identity at this time a chart entitled "Cost and Revenue—mills per kilowatt hour service to Sierra Pacific Power Company forecast as of 1947 compared with actual and forecast as of 1953, years 1948 to 1952, 1956 to 1963."

Presiding Examiner: That will be identified as Exhibit No. 40.

(The document above described was marked for identification as Exhibit No. 40.)

By Mr. Searls:

Q. Was this Exhibit No. 40 prepared under your direction, Mr. Roberts? A. Yes, it was.

Q. Will you explain what it shows? A. The chart shows the graphical representation of the unit cost as shown on page 25 of Exhibit 35, revised, and the mills per kilowatt

hour of revenue, actual and as forecast as of 1947, are the units appearing on page 10 of Exhibit 35, revised.

I have also included here units developed for the year

[1275]

1947.

Q. I think it would be well if you would state for the record at this point what the figures are for 1947 that you have plotted on this chart. A. In the forecast as of 1947, the average revenue per kilowatt hour was 7.12 mills while the actual was 6.99 mills per kilowatt hour. The cost of service, including the operating expense, 5.5 percent return, and taxes on income for the forecast as of 1947, the 1947 figure is 9.09 mills per kilowatt hour while the actual is 9.64 mills per kilowatt hour.

Q. What does the 1946 point on the two cost lines represent? A. The 1946 cost is that actually experienced for the cost and the revenue adjusted to the FPC 3 as actually experienced for 1946.

Presiding Examiner: What is the 1946 actual cost of service per kilowatt hour.

The Witness: It is 9.57 mills per kilowatt hour.

By Mr. Searls:

Q. What is the 1946 revenue adjusted to FPC No. 3? A. Seven point 72 mills per kilowatt hour.

Mr. Chanler: This forecast again is the hypothetical forecast, not the forecast that was actually made in 1947.

The Witness: It is the forecast made in the same

[1276]

manner // I have described for the forecast of 1947.

Presiding Examiner: It is a forecast made now for 1947 with data that was available to you in 1947?

The Witness: Exactly.

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[1283]

Q. There is one section of Exhibit 35 Revised, Mr. Roberts, to which no reference has yet been made, and that is the final section of the exhibit under the tab "Summary on KWH Basis." Will you refer to that section and explain briefly what is shown there? A. Shown in this section are the rates of return for the forecast as of 1947 and the actual rates of return resulting from an allocation of system network cost on a straight kilowatt-hour basis.

Q. Except for the method of allocation, can you say that the derivation of the rate of return on page 49 is the same as that used in deriving the figures on page 3 of this exhibit? A. Yes, they are.

Q. What do the figures on pages 50 and 51 refer to? A. The figures on 50 and 51 are the figures based on a straight kilowatt-hour allocation method comparable with the results summarized on pages 4 and 5 of this exhibit.

Q. As the text indicates, the figures were derived in an

[1284]

endeavor to isolate factors separately, with your // kilowatt-hour allocation method paralleling the allocation method used on page 5? A. Yes.

Q. What do the calculations on page 52 of Exhibit 35 Revised represent? A. The calculations on page 52 represent the rates of return on a kilowatt-hour allocation

method comparable with the figures shown on page 6 of this exhibit.

Q. What was the purpose of showing the results in this last section of Exhibit 35 Revised as derived by the kilowatt-hour method of allocation? A. This study simply gives an indication of the results to be obtained from different methods of allocation, and show that with rather widely varying individual units, comparison is possible of the forecast with the actual experience in a manner similar in both the method I. followed in Exhibit 35 Revised and the straight kilowatt-hour basis of allocation.

• • • • •

Presiding Examiner: May I ask Mr. Roberts, then, before he leaves Exhibit 35 Revised, is my understanding correct, Mr. Roberts, from page 51 of Exhibit 35 Revised that PG&E, while negotiating with Sierra in 1947, based upon all the data then available, that PG&E expected to get a return of 3.35 per cent on this '48 contract?

The Witness: Yes.

[1285]

Mr. Searls: May I have that question read?

(The question referred to was read by the reporter.)

The Witness: I should like to amend that answer to say that had the calculation been made at that time—but it was not—the factors then available would indicate the rate of return.

Presiding Examiner: Then you see, Mr. Roberts, you upset everything that is said or reasonably

derived from Paragraph 2(e) on page 51 where it says if all factors were as forecast in 1947, rate of return would be 3.35 per cent.

The Witness: Yes. I mean in my answer that while the cost data were estimated at that time, we did not allocate capital to this service and derive the rate of return, although we had the figures before us.

Presiding Examiner: What I have in mind is that certainly you gentlemen must have had some idea of, well, they are going to take so much energy; our costs are running so-and-so; we have to expend so-and-so; we are going to get about blank per cent. Now, what was that per cent? There must have been something in your mind. I judge from this page 51 that that is what you meant.

The Witness: The figures that I provided in my estimates to management did not indicate rates of return, although they did indicate deficiency from a 6 per cent rate of return in terms of dollars. That

[1286]

is the estimate that the // company had before it in making this contract. But we did not derive then a rate of return.

Presiding Examiner: In percentage?

The Witness: In percentage.

Presiding Examiner: No, and you didn't either with respect to the other resale contracts?

The Witness: That is correct.

By Mr. Searls:

Q. I just want to say that the study you did make in 1947 is among the papers which were submitted to Mr.

Wahrenbrock, and we presume are still in his possession; are they not, Mr. Roberts? A. Yes, sir.

Presiding Examiner: They were used by you in preparing Exhibits 35 Revised and 36 Revised?

The Witness: Exactly.

Presiding Examiner: And the various charts and graphs?

The Witness: Yes. I wish we had derived a rate of return at that time that would have made a presentation in answer to these questions.

Presiding Examiner: Yes, but in a very general sense I have expressed the correct understanding of that line on page 51?

The Witness: Yes, sir.

Mr. Chanler: Mr. Roberts, do I understand that

[1287]

the // studies that you did make in 1947 are here in the Commission Staff's possession now?

The Witness: Yes, sir.

Mr. Chanler: Could we look at them?

Mr. Searls: We have no objection.

Mr. Chanler: I didn't know there were any.

Presiding Examiner: They were used by you, Mr. Roberts, in making up this Exhibit 35 Revised and Exhibit 36 Revised?

The Witness: Yes.

Presiding Examiner: And 35 Revised and 36 Revised were presented to and at least in part considered by the Staff before you filed them?

The Witness: Yes, sir.

Presiding Examiner: I think the record shows,

in the way of motions and the like, that the Examiner has seen that either counsel for Sierra was present or was advised of the results. Is that right, Mr. Journey?

Mr. Journey: I think so. May I ask a question, sir?

Presiding Examiner: Certainly.

Mr. Journey: Before, I asked you whether or not these allocations were in the data you submitted to Mr. Wahrenbrock in response to Commission Staff Counsel's request. I understood you to say that that was not included in that.

Mr. Searls: Allocations, Mr. Journey?

Mr. Journey: The figures that the management

[1288]

of // Pacific Gas and Electric had before it in 1946 when that study was made, I understood you to say were not included in the material that was submitted in response to Staff Counsel's request.

The Witness: The studies in that data were presented in a little different manner than this was presented. We did not derive units of capital to allocate the system capital to Sierra Pacific. We took the over-all unit cost to primary substation input, including return and taxes on the integrated network, started out from there as unit cost for this service, and added to it the cost on the special facilities estimated to be required to serve Sierra, and got an over-all deficiency from a 6 per cent rate of return in our study, and for various years extending through 1963.

Now, with the factors present in that estimate,

although it was on a different basis, I was able to reconstruct a rate of return study which I felt would best answer the indicated questions in the order.

Mr. Journey: Are the load forecasts in those files as you submitted them?

The Witness: Yes, they are.

Mr. Journey: If you have no objection, if Sierra Pacific wants to see those files, they are in Mr. Wahrenbrock's office. He has them, that Pacific

[1289]

Gas and Electric // submitted in response to the Staff's request.

Mr. Searls: We have no objection.

Mr. Chanler: I am not clear yet as to what the study Mr. Roberts spoke about is. I understand that there was some study made in 1947 which you used in preparing Exhibit 35 Revised.

The Witness: Yes. I used the basic data.

Mr. Chanler: That study cannot be the one you sent to Mr. Wahrenbrock last summer, because that was before you began working on Exhibit 35. So there is another study, isn't there?

The Witness: No. The study which we had made during negotiations of this contract were not in the form to give a rate of return for the business.

Mr. Chanler: But where are they, is what I am asking. I am not asking what they are. I am asking where they are.

The Witness: The studies are in Mr. Wahrenbrock's possession.

Mr. Chanler: They are the ones you sent there at the end of the hearing last spring?

The Witness: Yes.

Mr. Chanler: You have not used those studies in preparing Exhibit 35 Revised, then, have you?

The Witness: Yes, I have. I borrowed them back for the purpose of getting the basic data.

[1290]

Mr. Chanler: You borrowed that from Mr. Wahrenbrock?

The Witness: Yes.

Mr. Chanler: And then returned them?

The Witness: Yes.

Mr. Chanler: And those are the ones you will make available to us?

Mr. Journey: Yes.

Mr. Chanler: Thank you.

Presiding Examiner: We will take a ten-minute recess.

(Whereupon, at 3:15 p.m., a recess was taken until 3:25 p.m.)

Presiding Examiner: The hearing will come to order. Did you have a question, Mr. Journey?

Mr. Journey: Mr. Roberts, the data from which all of the things in the 1946 forecast could have been computed were included within the materials that were submitted to Mr. Wahrenbrock at the conclusion of the hearing in this proceeding last May, were they not?

The Witness: Yes, they were, with the possible exception that the 1946 system cost may not have been included in their total, as such, but simply the units of cost on system network, including a 6 percent rate of return.

Mr. Journey: All right, Mr. Searls.

• • • • •

[1291]

By Mr. Searls:

Q. Mr. Roberts, will you explain what this Exhibit 42 shows? A. This Exhibit 42 is a page comparable with page 3 of Exhibit 35 Revised, in which the forecast as of 1947 under column one shows the rates of return which would have been derived had the forecast been based on 1946 costs. It follows exactly the development for the units shown on page 3 with the exception that the 10 per cent increase over '46 costs was not included.

Q. Are the figures in columns 2 and 3 of Exhibit 42 the same as the figures in columns 2 and 3 of page 3 of Exhibit 35 Revised? A. Yes, they are.

Q. And it is only the forecast figures in column 1 that are different, is that correct? A. Yes.

Q. What accounts for all of the difference between the two showings in column 1? A. All of the difference is accounted for by the fact that these units were developed from the actual 1946

[1292]

costs as experienced without an estimated 10 per cent increase.

Q. In your opinion, would a forecast on such a basis have been a reasonable forecast? A. Yes, it is the manner in which we make most of our forecasts, to assume the costs as experienced presently to continue.

Q. Now, in order to complete the comparison with 1947 figures which you testified to, have you computed the appropriate figure for 1947 comparable to the other figures in column 1 of Exhibit 42? A. Yes, I have. The figure in column 1 for 1947 is 3.95 per cent, while the actual is as given before, 2.47 per cent under FPC No. 3.

1292

Presiding Examiner: Are you saying, Mr. Roberts, that it is usual and customary in making a 15-year contract to use the figures of 1946 without adjustment?

The Witness: Yes, it is the usual practice.

Presiding Examiner: Looking ahead on a 15-year contract?

The Witness: Yes. A rate, as I understand it, in a contract is approved in our case by a commission, and the rate to be derived is one which is based on present-day costs. At such times as the costs change upward or downward, the rate is usually adjusted to follow that.

[1293]

Presiding Examiner: All right, thank you.

Mr. Journey: Is it possible to include known price increases like a wage increase, something that is definitely known? I presume you are referring to the California Commission when you say that.

The Witness: Yes. In reference to the California Commission, they have allowed us to include wage increases of known amounts and perhaps adjustments for fuel costs. Normally the adjustments are what are actually experienced at the time of the study. It would not be appropriate to assume a higher fuel cost than had actually been experienced in the immediate past, that is, but if we had had a wage increase or a fuel oil increase from the time the study was made until the time considered, that adjustment would be appropriately included.

Mr. Journey: By "actual experience," you mean

to include something, some known increase, such as taxes, something like taxes or wages or fuel?

The Witness: Yes, sir.

By Mr. Searls:

Q. I would like to turn now to Exhibit 36-Revised—

Mr. Chanler: Might I follow up something which has been said just now, at this moment?

Presiding Examiner: Yes, sir.

Mr. Chanler: You say it is not customary to look ahead

[1294]

to possible increases in cost in making a long-term contract because you expect the contract rate would be increased as the costs increase? Is that your testimony? I thought it was.

The Witness: Under regulation, as I understand it, the cost data in support of a rate are developed from the cost experienced as of that date. In none of the calculations I have known before any commission has any anticipated increase been allowable.

Now, particularly at a period such as 1947, the company had experienced a long declining unit cost of operation and of capital cost, and certainly there was no justification for estimating an increase. We cannot as of this minute say whether in the next ten years, costs are going to go up or down, and the usual procedure is to assume they will remain constant, the unit costs.

Mr. Chanler: You made a study, however, projecting costs to 1963, I think you told us, in connection with this very contract, didn't you?

1294

The Witness: Yes, we did, and we assumed in that study that the costs then visible to us would prevail.

Mr. Chanler: Did you believe that they would?

The Witness: Yes, we did.

Mr. Chanler: You did not think there were going to be any cost increases from 1947 on?

[1295]

The Witness: We had anticipated a sudden rise during part of 1947, particularly fuel, as ceilings were removed, but it was not only our opinion but the opinion of many experts that I have looked into, that this was a temporary thing paralleling the situation in 1921; that there was a postwar boom which was to be followed, people were wondering how they were going to overcome the effects of a recession.

Mr. Chanler: And you believed from 1948 to 1963, costs would probably not increase, is that your testimony?

The Witness: That was our basis for making a forecast in support of a rate.

* * * * *

[1305]

JOHN F. ROBERTS resumed the stand and testified further as follows:

Cross examination by Mr. Chanler:

Q. Now, Mr. Roberts, just to show we understand each other, Exhibit 35 (Revised) about which you were testify-

[1306]

ing // yesterday is not based on any actual forecast of rate of return that ever was made in 1947, is it? A. The record is pretty clear, I believe, Mr. Chanler, that the basic data

Q. Would you answer my question yes or no?

Presiding Examiner: I think you can, Mr. Roberts. I agree with you that I think it is clear that it should be an affirmative answer, but if I am wrong you say so. Go ahead.

The Witness: Yes. It is not an estimate which was in fact made prior to the development for the answering of these questions on the Commission's order.

Presiding Examiner: Or at the time of the making of the contract FPC-3?

The Witness: That is correct.

By Mr. Chanler:

Q. But it is your present estimate of what such a forecast would have shown if one had been made, is that correct? A. That is correct.

* * * * *

[1342]

By Mr. Chanler:

Q. Would it take a long time? I would like to have it done if it can be, Mr. Examiner.

Presiding Examiner: Do I understand from your question to Mr. Roberts now pending that you want him to take the entire column, middle column headed "Year 1952 Estimated" and substitute actual figures?

Mr. Chanler: Only that portion of it under the subheading "Cost to P.G.&E. Company," which requires two figures and a computation. The present cost at Shasta of the power they now purchase from Shasta and the proportionate share of the transmission costs of P.G.&E. worked out on the same basis as they worked this one out, which is explained on Sheet 3, my purpose being to show, having shown here what

[1343]

they anticipated, to show what they got.

* * * * *

[1351]

Q. Mr. Roberts, have you calculated the actual cost to Pacific Gas and Electric Company for the year 1952 figuring it out in the same manner as appears under the heading "Cost to PG & E Co." on sheet 1 of Exhibit 44 as explained on sheet 3 of Exhibit 44? A. I have calculated the incremental cost of service to Sierra assuming that the power from Central Valley was delivered to Sierra. I attempted to follow the manner used, I believe I have neglected an item of ten per cent for transmission losses which was included in the original figure.

Presiding Examiner: Referring now to Exhibit 44?

The Witness: To Exhibit 44.

Presiding Examiner: Sheet 3.

The Witness: Sheet 3. On the first line of the middle column my figure would now be 1,108,875, transmission cost—

Presiding Examiner: Instead of—

[1352]

The Witness: Instead of $597,600.

My transmission at PG & E System average cost is now approximately $8 per kilowatt month, it would be $375,000 in place of $264,000. Assuming that the present stand-by chart of 30,000 remains the same, although I do not purport that to be the cost of standby for this service, I then have a total of $1,483,875.

Presiding Examiner: With a cents per kilowatt hour of what?

The Witness: Approximately 6.7 mills per kilowatt hour. Pardon me. As written here .670 cents per kilowatt hour in place of .602 cents per kilowatt hour.

I might explain that my calculation of the incremental cost to PG & E of Shasta Power I assume to be dependable power which Pacific Gas and Electric Company buys for $1.083 per kilowatt month plus 1.9 mills per kilowatt hour.

Presiding Examiner: That completes your answer?

The Witness: Yes, sir.

By Mr. Chanler:

Q. Mr. Roberts, PG&E purchases power from Shasta at Shasta Dam, does it not? A. No, sir. It purchases power from Shasta at Tracy or equivalent delivery.

Q. And what is the average cost per kilowatt hour of the power that PG&E purchased from Shasta in 1952 as

[1353]

shown // on FPC Form 1 the cost of power there shown is for dependable and non-dependable capacity which PG&E

buys from Central Valley Project, the non-dependable being available to PG&E because of the integration arrangement with the Central Valley project, and is included in the total amount.

Q. Would you answer my question, please? A. I was laying the background so that we would understand what we were talking about in giving a rate per kilowatt hour of Central Valley Power for the year 1952 which was a very high water year during which very large amounts of this non-dependable capacity and energy were available.

The average rate was 3.74 mills per kilowatt hour as I recall.

Q. That includes losses, does it not? A. That is the average cost of the kilowatt hours in total delivered to the Pacific Gas and Electric Company. I do not know what you mean by the inclusion of losses.

Q. That is the rate that you actually pay to Central Valley for that power, isn't it? A. The total power purchased in 1952 resulted in that average rate, the amounts paid for dependable and non-dependable capacity and energy.

Q. But that is not the figure that you used in your

[1354]

calculation? // A. The figure I used in my calculation, assuming that Sierra Pacific would want certainly a dependable source of power, was the dependable power that we purchased, that average rate for this load factor of this business.

Mr. Chanler: That is all I have.

Presiding Examiner: Mr. Journey?

Mr. Chanler: May I ask one more question?

Presiding Examiner: Proceed.

By Mr. Chanler:

Q. What would your figure—I will not ask you to go through the whole calculation—your first figure of cost of Shasta substation be if you had used 3.74 as the cost?

Presiding Examiner: 3.674 what?

Mr. Chanler: 3.74 mills.

Presiding Examiner: 3.74? Is that it?

Mr. Chanler: 3.74 mills.

Presiding Examiner: All right.

Mr. Chanler: Which is the figure that appears on the form of FPC form 1.

Mr. Searls: Mr. Examiner, I object to any such figure being in the record since it is clearly not appropriate. It is an average cost of power including non-dependable power.

Presiding Examiner: I can see Mr. Chanler

[1355]

where // that might be confusing.

Why do you think it is relevant here?

Mr. Chanler: The first line of sheet 3 of this exhibit says: "The method used in computing the cost to PG&E of power delivered to Seattle at Summit assuming this power to be purchased at Shasta substation under our present Shasta contract," is the same as something developed in another study. Now perhaps it would clarify if I asked the witness if he knew anything about the Dennison study. I had not wanted to confuse it with that.

Presiding Examiner: You are certainly going to confuse it if you are going to bring in some of their figuring on the Dennison Dam contract.

Mr. Chanler: I was not proposing to, Mr. Examiner. I think that language means average cost to them under their contract and I assume that is what is shown.

Presiding Examiner: You have got a figure here of $1,108,875 as the actual cost as nearly as Mr. Roberts could compute it after consulting the annual report in lieu of the estimate appearing in the center column of sheet 1 of exhibit 44 of $597,600. What more do you want?

Mr. Chanler: I do not believe, sir, from what Mr. Roberts has said in answer to my questions that he arrived at his figure of $1,108,175 by the same method that was used in computing the esti-

[1356]

mated figure of $597,600 and I // believe that the correct way of measuring that is by the average cost to PG & E of power purchased at Shasta.

Presiding Examiner: You do not believe it. Why don't you ask him whether he did or did not?

Mr. Chanler: I asked him which way he did and asked him to compute it my way so we would have the figure.

The Witness: May I explain one thing that is confusing?

Presiding Examiner: Yes.

The Witness: This calculation made by Mr. Beckett was—

Presiding Examiner: In Exhibit 44?

The Witness: In Exhibit 44—was made by dividing the dollars paid by PG&E under the R-2, F-2

rate of Central Valley under which we then purchased power, we purchased dependable power. Under those rates the dollar amount was divided by the kilowatt hours resulting in an average rate that PG&E was then paying for Central Valley Power dependable capacity.

I know that since the calculation here we have made a wheeling and purchase agreement with Central Valley under which the capacity and energy are split, one dependable and one non-dependable and I feel it is not proper to include non-dependable capacity which is not available to anyone other than agencies of the Government who have generating facilities or other provisions into this calculation. It just is comparing horses and apples. I have

[1357]

attempted to calculate what this increment of power from Shasta costs us.

I have assumed Sierra's load factor, it is practically the load factor of Pacific Gas and Electric Company System purchases—pardon me, Pacific Gas and Electric Company.

You will recall the load factors in 1952 of the two companies, Sierra and Pacific, were almost identical. I think this is the only figure comparable with the type of figure Mr. Beckett produced and I want to keep at least that much—

Presiding Examiner: I think you should as nearly as we can with the figure that was used in this Exhibit 44 on sheet 1.

The Witness: That is right.

• • • • •

[1360]

By Mr. Journey:

Q. Mr. Roberts, were there other studies although you may not have been responsible for the preparation of them to any greater extent than you were of Exhibit No. 44 available to the management of Pacific Gas and Electric

[1361]

Company at the time this 1948 contract was being negotiated with Sierra Pacific Power Company? A. Yes, I believe they were. They are all in evidence in the materials we sent.

Presiding Examiner: They are what?

The Witness: They are in the materials we sent the staff. Many considerations that I saw—

Presiding Examiner: Just a moment. Where are they? Are they exhibits?

The Witness: Was this entered as an exhibit, the files sent to the staff?

Presiding Examiner: Pardon me.

The Witness: Were the files sent to the Staff entered as an exhibit?

Presiding Examiner: No, they are not exhibits. Portions of the file have been taken out and made exhibits, Mr. Roberts.

The Witness: As I understand it, there are other studies which were made and included in the file but not presented as exhibits.

Presiding Examiner: And are in that file now?

The Witness: Are in the total of all of the files submitted to the Commission. We submitted everything we had on the subject.

Presiding Examiner: All right.

[1362]

By Mr. Journey:

Q. In your opinion would you think that the management of Pacific Gas and Electric Company at the time they entered into these negotiations would have been justified in relying on one cost study, one study such as was submitted in the material in response to Mr. Wahrenbrock's questions? In your opinion would they have used more than one? A. I would think they would look at a contract of this nature from many angles and would have reviewed all of the various cost studies.

Q. As part of the management of Pacific Gas and Electric Company do you know from your knowledge which one was used? A. No, I do not. I do not know that any single study or computation was the determining factor in the management's judgment.

Q. Then you do not know whether or not exhibit 44 was determinative of the decision made by the management of Pacific Gas and Electric Company to any greater extent than any other study they might have had before them at that time? A. No, I do not know that to be a fact. I would say certainly—

* * * * *

[1363]

Presiding Examiner: Mr. Searls, any redirect?

Redirect examination by Mr. Searls:

Q. Mr. Roberts, I would like to refer to exhibit 44, sheet 1, a column for the year 1952 estimated and under the side heading "On P-31 plus $30,000 per year" there is an item for revenue of $956,765. That is higher or

lower than the estimated 1952 figure which you used in your exhibit 35 revised? A. It is higher.

Q. If you had used the higher figure to which I have just referred in this exhibit 44 in your study, would your forecast rate of return for 1952 have been higher or lower? A. It would have been higher.

Q. In that respect would you say that the figure you used was more conservative? A. Yes, it was.

Q. In your opinion is the figure that you used more accurate? A. Yes, I believe so because I worked the estimated amounts out monthly considering all factors such as power factor adjustments.

Q. Mr. Roberts, would you consider the study contained

[1364]

in Exhibit 44 a type of incremental cost determination? A. Yes, it is.

Q. In your experience in the rate department when considering rates for particular situations, do you make incremental cost determinations? A. Yes, I do.

Q. Do you make other types of cost determinations at the same time? A. Yes, sir.

Q. You have previously testified that the basic data for the forecast you presented in your Exhibit 35 revised was contained in a study made in 1946 and 1947, have you not? A. Yes, sir.

Q. Was that an incremental cost study? A. No, that was an average cost study, one we usually made in supporting rates.

Q. Are all of the data that you used in Exhibit 35 revised consistent with the methods and figures used in your earlier study in 1946 and 1947? A. Yes, they are.

Presiding Examiner: Now what earlier study are you referring to, Mr. Searls?

Mr. Searls: The same average cost study I am asking about that was referred to in the answer is

[1365]

to the immediate // preceding questions.

Presiding Examiner: Which studies are not in the record.

* * * * *

[1371]

Mr. Searls: Mr. Examiner, I will renew my request that Pacific Gas and Electric Company be given an opportunity to place other studies in the record which are certainly even more relevant to this question than the studies which have just been admitted as exhibits 44 and 45.

Presiding Examiner: Would they be more relevant than exhibit 35 revised?

Mr. Searls: I believe in view of the attack which has been made by Mr. Chanler on exhibit 35 revised that they should be received in evidence to show—

Presiding Examiner: Would they be more relevant than exhibit 35 revised?

Mr. Searls: In the respect that they would show what actually took place prior to the negotiation of this contract FPC No. 3 and are part of the res gestae in the sense the Examiner mentioned, we believe that they are more relevant and should be admitted.

Presiding Examiner: Well, Mr. Searls, the Examiner

will overrule your motion because it seems to him that litigation must come to an end at sometime. When we started yesterday morning I could not quite understand how counsel for Pacific intended to provide an answer to the six questions put by the Commission but when he said that it would all be a matter of argument in the evidence that he intended to introduce I thought probably that is the best answer that could be made.

If the Commission cares to further extend the time for the final determination of this matter, that, of course it has the power to do and I feel that as an Examiner, I would be exceedingly lax, I would be violating my sound discretion in granting your motion. You may have the opportunity, of course, to present such a motion directly to the Commission, Mr. Searls.

* * * * *

EXHIBIT 1

[1467]

Material appearing on this page is identical with that printed at [2088] herein.

[1468]

Material appearing on this page is identical with that printed at [2089] herein.

[1470]

Material appearing on this page is identical with that printed at [1550] herein.

[1471]

Material appearing on this page is identical with that printed at [1551] herein.

[1472]

Material appearing on this page is identical with that printed at [1552] herein.

[1473]

Material appearing on this page is identical with that printed at [1553] herein.

[1474]

Material appearing on this page is identical with that printed at [1554] herein.

[1475]

Material appearing on this page is identical with that printed at [1555] herein.

[1476]

Material appearing on this page is identical with that printed at [1556] herein.

[1477]

Material appearing on this page is identical with that printed at [1557] herein.

[1478]

Material appearing on this page is identical with that printed at [1558] herein.

EXCERPT FROM EXHIBIT 4

[1503]

Comparative Statement of Sales and Revenue by Months under Present and Proposed Rates

ACTUAL

Date	Total Sales Kwh	Kw Demand		Percent Power Factor	Billing Under Present Rate	Billing Under Proposed Rate
		Actual	Billing			
1952						
Jan.	17,508,000	42,480	42,480	100	$ 100,050.62	$ 128,700.79
Feb.	15,099,730	38,400	40,440	100	90,295.37	116,001.31
Mar.	14,686,350	35,220	38,850	100	87,512.06	112,396.20
Apr.	14,139,113	35,580	39,030	100	85,870.91	110,250.25
May	14,540,841	32,220	37,350	100	85,691.37	100,046.25
June	18,136,170	38,160	40,320	100	100,187.51	128,918.61
July	18,803,411	39,180	40,830	99	103,053.00	132,508.09
Aug.	18,732,049	40,200	41,340	99	103,274.55	132,787.81
Sept.	20,903,399	43,080	43,080	99	111,999.23	144,135.31
Oct.	18,491,572	44,340	44,340	100	104,953.15	135,067.83
Nov.	20,532,103	46,680	46,680	100	113,765.50	146,531.08
Dec.	19,774,370	46,920	46,920	100	111,484.82	143,549.09
Total	211,347,108	482,460	501,660		$1,198,138.09	$1,540,892.62
Standby Charge					30,000.00	30,000.00
Total Charge					$1,228,138.09	$1,570,892.62

ESTIMATED

Date						
1953						
Jan.	20,368,000	47,244	47,244	100	$ 113,729.67	$ 146,473.86
Feb.	18,536,000	46,000	46,622	100	107,140.34	137,882.12
Mar.	18,404,000	42,912	45,078	100	105,324.78	135,539.68
Apr.	17,472,000	42,000	44,622	100	101,847.75	131,008.34
May	19,440,000	41,848	44,546	100	108,260.69	139,382.43
June	20,676,000	43,263	45,254	100	112,964.22	145,510.52
July	23,752,000	47,816	47,816	99	125,643.77	161,845.14
Aug.	25,152,000	51,583	51,583	99	133,639.62	172,205.30
Sept.	24,152,000	54,500	54,500	99	132,953.85	171,258.04
Oct.	25,152,000	56,195	56,195	100	137,489.33	177,332.37
Nov.	24,952,000	56,500	56,500	100	137,103.49	176,823.06
Dec.	25,352,000	57,000	57,000	100	138,867.91	179,117.65
Total	263,408,000	586,861	596,960		$1,454,965.42	$1,874,378.51
Standby Charge					30,000.00	30,000.00
Total Charge					$1,484,965.42	$1,904,378.51

EXCERPTS FROM EXHIBIT 5

[1550]

THIS AGREEMENT made by and between PACIFIC GAS AND ELECTRIC COMPANY, a California corporation, hereinafter called Pacific, and SIERRA PACIFIC POWER COMPANY, a Maine corporation, doing business in the State of California, hereinafter called Sierra,

WITNESSETH that:

WHEREAS Pacific owns and operates two 60 kv circuits delivering power from its Drum and Spaulding generating plants, respectively, to Summit, all in Placer and Nevada Counties, State of California, each of said circuits having a capacity of 15,000 kw and both of said circuits combined having a capacity of 30,000 kw of electric energy for delivery to Sierra; which is sufficient to meet Sierra's present demands on Pacific of approximately 29,000 kw; and

WHEREAS, the parties hereto have heretofore entered into an agreement dated June 6, 1938, hereinafter called Former Contract, pursuant to which Pacific promised to sell and deliver to Sierra and Sierra promised to purchase and receive from Pacific electric energy, during a period expiring November 1, 1953, for use in the conduct of Sierra's utility electric business, and Sierra had the right

[1551]

to purchase power from other parties than // Pacific subject to payment to Pacific, in addition to a prescribed standby charge, of a sum of not less than $75,000.00 for each year during which such purchases might be made from other parties; and

WHEREAS, the parties hereto desire to supersede said Former Contract by the agreement herein set forth.

NOW, THEREFORE, in consideration of the premises and of the respective promises of the parties hereto, they mutually agree as follows, to-wit:

1. Pacific shall sell and deliver to Sierra and Sierra shall purchase and receive from Pacific all of the electric energy which Sierra shall, during the term hereof, require for resale to its customers and for use in the conduct of its electric business, except such electric energy as Sierra may generate in its existing electric generating plants, and such quantity of electric energy as Sierra now purchases or may hereafter purchase from others under minor standby and minor exchange agreements.

2. All electric energy delivered and received hereunder shall be three-phase, sixty cycle, alternating current, and shall be delivered and metered at a nominal electro-motive force of approximately 60 kv and 110 kv, slight variations in frequency to be allowed. Points of delivery and metering to be as hereinafter provided.

[1552]

3. All of such electric energy shall be sold and delivered to and purchased and paid for by Sierra in accordance with Pacific's applicable rules and regulations duly and regularly established from time to time by or under authority of law and on file with the Public Utilities Commission of the State of California.

4. For all electric energy delivered hereunder, Sierra will pay Pacific in accordance with the following schedule of rates:

Demand Charge

First 2,000 kw of maximum demand $1,338 .75 per month
All excess kw of maximum demand .34 per kw per month

plus

Standby Charge

For not more than 4,000 kw payable in equal monthly installments $30,000.00 per year

plus

Energy Charge

First	150 kwh	per kw per month	6.79	mills per kwh
Next	150 "	" " " "	4.85	" " "
All Over	300 "	" " " "	3.88	" " "

Except that for all energy furnished in excess of 8,000,000 kwh per month, the above energy rates shall be reduced by .485 mills per kwh.

Minimum Charge

Applicable when the maximum demand in the current month or in the preceding 11 months has exceeded 25,000 kw: $1.00 per month per kw of such maximum demand

[1553]

Special Conditions

(a) *Demand:* The maximum demand in any month will be the average kw delivery of the 30-minute interval in which such delivery is greater than in any other 30-minute interval in the month. The maximum

demand to be used in computing charges under the above rates will be the mean of the actual maximum so determined for the current month and the highest such demand occurring in the year ending with the current month.

(b) *Off Peak Demand:* Demands occurring between 10:30 P.M. of one day and 6:30 A.M. of the next following day, and on Sundays and legal holidays, will be ignored in determining the demand used for computing charges.

(c) *Power Factor:* The total charge for any month as computed on the above rates will be decreased or increased, respectively, by 0.25% (0.2% if energy used in the month exceeded 8,000,000 kwh) for each 1% that the average power factor of customer's load in that month was greater or less than 85%, such average power factor to be computed (to the nearest whole per cent) from the ratio of lagging kilovolt-ampere hours to kilowatt-hours consumed in the month, provided, however, that no power factor correction will be made for any month when customer's maximum demand was less than 10% of the highest in the preceding eleven months.

Sierra shall at all times so conduct its operations that the power factor at the time of peak loads each day at the point of delivery hereunder shall not be less than 95%.

5. The standby requirements of Sierra may at the option of either party hereto be reviewed and adjusted at the end of each successive three (3) year period during the term hereof.

In the event that during any such three (3) year period it shall be demonstrated by actual experience that Sierra's standby requirements exceed 4,000 kilowatts, then such

greater number // of kilowatts shall be deemed to be the standby requirements of Sierra and the standby charge shall be increased proportionately until again adjusted, as provided in the preceding paragraph, to such lesser or greater number of kilowatts and standby charge as may be mutually agreed upon.

6. Sierra shall upon receipt of bill therefor pay Pacific monthly at its office in San Francisco, California; for all electric energy delivered hereunder.

7. Pacific shall, at its sole cost and expense, construct a three phase, 110 kv pole and wire electric transmission line (hereinafter called first 110 kv line) of a capacity of approximately 40,000 kw, extending from its Drum Power House to the said point of delivery at Summit, and shall endeavor to complete the same ready for operation by October 1, 1949, or as soon thereafter as circumstances permit, which first 110 kv line shall at all times be and remain the sole property of Pacific. Inasmuch as it will be impracticable, on account of winter and other conditions existing at Summit, for Pacific to build, maintain and operate a substation at Summit for the purpose of transforming said electric energy from 110 kv to 60 kv for delivery hereunder, after said first 110 kv line of Pacific shall have been constructed, it is therefor agreed that Sierra will, at its sole cost and expense, construct a three phase, 110 kv pole and wire electric transmission line, of approximately 40,000 kw capacity (hereinafter

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called Sierra's first 110 kv. line) extending // from Summit to a substation to be constructed by Sierra at a convenient point within the State of California, and Sierra will also construct said substation (hereinafter called California Substation) with a capacity of 40,000 kw for the purpose of reducing from 110 kv to 60 kv the voltage of the power to be transmitted over Sierra's first 110 kv line. Sierra's first 110 kv line and California Substation shall at all times be and remain the sole property of Sierra, and shall be operated and maintained by it. In consideration of the construction, operation and maintenance by Sierra of Sierra's first 110 kv line and California Substation, Pacific will pay to Sierra each month, from the date said line and substation are placed in operation and for the remaining term of this agreement, (however not to exceed a period of fifteen (15) years,) a sum equal to 1/12 of annual costs of operation of said substation, plus 1/12 of the annual fixed charges for interest, depreciation, maintenance and taxes, based on the installed cost of said substation. The amount of said annual fixed charges for this purpose shall be deemed to be 10% of Sierra's investment in said substation (estimated to be approximately $300,000.00), but in no event shall the combined 1/12 of said costs of operation and of said fixed charges exceed $2,500.00 per month.

8. If at any time during the term hereof Sierra shall require more power and electric energy than Pacific can

[1556]

supply reasonably through the said two existing 60 kv lines and Pacific's said first 110 kv line, to be constructed by it hereunder as aforesaid, then Pacific shall either construct, maintain and operate a second 110 kv transmission

line to Summit, or convert one of said existing 60 kv lines to 110 kv, (either of which lines, as shall be thus constructed or converted, shall hereinafter be designated second 110 kv line), and Sierra will, correspondingly, either construct a second 110 kv transmission line, or will convert to 110 kv one of Sierra's existing 60 kv lines, in order to receive the electric energy which Pacific will deliver from said second 110 kv line to Sierra at Summit, provided that if such further construction or conversion of said second 110 kv line is required of Pacific after January 1, 1950, Sierra will then extend the present contract for a period of fifteen (15) years from the date when said second 110 kv line goes into service. In the event that further additions to the capacity of California Substation, or any other 110/60 kv substation, are required by reason of the construction of second 110 kv line, said additions shall be constructed, operated, and maintained by Sierra without any additional compensation from Pacific.

9. All electric energy purchased hereunder shall be delivered to Sierra at the point where Pacific's lines contact those of Sierra at the location known as "Summit"

[1557]

in Placer // County, California. All electric energy delivered hereunder from Pacific's existing two 60 kv circuits to Sierra's 60 kv lines shall be metered at Summit, and all electric energy delivered hereunder from Pacific's first 110 kv line, when constructed as hereinbefore provided, shall, for the mutual convenience of the parties hereto, be metered at 60 kv at California Substation. If during the term hereof, Pacific shall be required, as hereinbefore provided, to construct a second 110 kv line, then Pacific

shall deliver and meter at 110 kv at Summit such electric energy as is delivered by means of said second 110 kv line. The readings of all meters referred to in this Section 9 shall be combined, and simultaneous demands shall be used, for billing purposes hereunder.

10. Sierra, in the event of selling, leasing, or otherwise disposing of its business of selling electric energy, may assign this agreement to the lessee or purchaser thereof, provided such lessee or purchaser shall have assumed and covenanted to perform this agreement but otherwise Sierra shall not assign this agreement without Pacific's written consent.

11. This agreement shall be and remain in full force and effect until December 31, 1964, or fifteen (15) years after the date when the first 110 kv line goes into service, whichever is later, unless extended as herein provided, and this contract shall supersede said Former Contract.

[1558]

12. This agreement shall become effective as of January 1, 1948, upon the procurement of an order by the Public Utilities Commission of the State of California authorizing the parties hereto to carry out the terms and conditions hereof. This agreement shall at all times be subject to such changes and/or modifications as said Commission may from time to time direct in the exercise of its jurisdiction.

Time is of the essence of the respective provisions hereof.

IN WITNESS WHEREOF the parties hereto have executed these presents in duplicate this 4th day of March, 1948.

SIERRA PACIFIC POWER COMPANY,

By F. A. TRACY
Its President

and by H. P. DANTON
Its Assistant Secretary.

PACIFIC GAS AND ELECTRIC COMPANY,

By N. R. SUTHERLAND
Its Vice President in Charge of
Public Relations and Sales

and by RAYMOND KINDIG
Its Secretary.

Approved

JAMES F. POLLARD
Manager Commercial Department

Approved as to Form

R. E. SLOANE
Attorney

EXCERPTS FROM EXHIBIT 9

[1581]

CALIFORNIA RAILROAD COMMISSION

RE PACIFIC GAS & ELECTRIC COMPANY

Decision No. 38305, Case No. 4788, Application Nos. 26889, 26925

October 16, 1945

* * * * *

[1582]

At the hearing, witnesses for Pacific explained the circumstances which had given rise to the proposed rate reductions. It was pointed out that the United States Department of the Interior, Bureau of Reclamation, has publicly offered a schedule of rates for the sale of electric energy generated at its Shasta hydroelectric plant, applicable to municipalities, irrigation districts, and other publicly operated systems for their own use and for redistribution. Such resale rate offered by the Bureau was substantially lower than Pacific's presently effective resale rates for similar services. One municipality, the city of Roseville, has signed a contract with the Bureau to continue for a period of approximately ten years. Under such circumstances, as the testimony shows, Pacific was confronted with the necessity either of attempting to meet such competition, or suffering the possible loss of other resale customers. Its Schedule P-31 was developed for this purpose.

* * * * *

[1] Testimony given by witnesses for Pacific, as well as by the Commission's staff, indicates that Schedule P-31 will not return all the costs which properly should be included if a full compensatory rate were being established. There is not as yet any way of judging the relationship of the rate level under the Bureau's contract to the costs involved in the rendition of service. No cost studies of the Shasta project have been made available to the public and no evidence thereon was presented in this proceeding. The city attorney of the city of Lodi expressed the opinion that, although that city had accepted Pacific's Schedule P-31, the Commission should consider the reduction of that rate to a still lower level, and he also asked that the 5-year contract requirement be eliminated. The only question before us here is whether the rate reduction proposed might be unjustified because of the possible burden it might place upon other customers. We would not have authority in these proceedings to prescribe a rate below that offered in the suspended schedule.

[2] With respect to the 5-year contract requirement, it might be observed that this Commission has for many years taken the position that a utility should not require a contract as a condition precedent to obtaining service except under special circumstances. Exceptions have been made when the capital outlay required, or the low rate offered, would be unjustified unless some minimum service period were imposed. The contract requirement in Schedule P-31 does not seem to be unreasonable. Not only will the schedule yield less than that required from the full cost-of-service standpoint, but Pacific's customers are permitted the alternative of continuing on the P-6 Schedule for which no contract is required.

As noted above, Pacific intends to make its Schedule

P-31 available to all private and public resale customers which now have Schedule P-6 available.[1]

It justifies the offer of reduced rate to resale customers primarily in order to safeguard existing business and likewise to generally preserve the uniformity of its resale rate classification, even where competition is not as yet as imminent as in the northern Sacramento valley portion of Pacific's system, where Shasta generated power can most readily be supplied.

[3] It is clear that Pacific has the legal right to reduce its rates in order to meet in good faith the competitive rates being offered by the Bureau of Reclamation. This right has frequently been recognized by the Commission. Our precedents to such effect, as well as the judicial authorities, were cited in the case of Modesto Irrig. Dist. v. Pacific Gas & E. Co. 36 Cal RCR 766, PUR1932B 203, 208, in which decision the Commission stated that to hold otherwise "would involve not only a serious but unjustifiable departure from the long and unbroken trend of statutory, judicial and Commission precedent, both in this state and elsewhere, which overwhelmingly sustains the right of a utility to meet in good faith a competitive rate without rendering itself subject to a charge of unlawful locality discrimination." However, as the Commission clearly stated in that decision, as well as in many others, the loss, if any, incurred by a utility offering a competitively reduced rate, must be borne by the utility itself and will not be permitted to burden its other customers.

[1] The P-6 Schedule is not applicable throughout Pacific's service area. It has served the cities of Ukiah, Healdsburg, and Lompoc under contracts providing somewhat higher rates, but has entered into new contracts with these cities at lower rates. Such contracts will be presented for our consideration in applications to be filed subsequently.

EXCERPTS FROM EXHIBIT 10

[1587]

BEFORE THE

RAILROAD COMMISSION OF THE STATE OF CALIFORNIA.

L. HAROLD ANDERSON and IRA H. ROWELL,
Commissioners, Presiding.

Suspension and investigation on the Commission's own motion of proposed Schedule P-31, Resale Power, filed by Pacific Gas and Electric Company.	Case No. 4788
In the Matter of the Application of PACIFIC GAS AND ELECTRIC COMPANY for an order of the Railroad Commission of the State of California approving an agreement entered into with the City of Redding, under date of July 3, 1945, and relating to the furnishing by the former to the latter of electric energy.	Application No. 26,889
In the Matter of the Application of PACIFIC GAS AND ELECTRIC COMPANY for an order of the Railroad Commission of the State of California approving an agreement entered into with the City of Palo Alto under date of July 30, 1945, and relating, among other things to the furnishing by the former to the latter of electric energy for resale purposes.	Application No. 26,925

* * * * *

[1588]

SAN FRANCISCO, CALIF., SEPT. 13, 1945: 10 O'CLOCK A. M.

Commissioner Rowell: We will be in order, please.

* * * * *

[1589]

B. B. BECKETT, a witness called on behalf of the Pacific Gas and Electric Company, being first duly sworn, testified as follows:

Direct examination:

Mr. Duval: Mr. Beckett, are you an employee of the Pacific Gas and Electric Company?

A. I am.

* * * * *

[1590]

B. B. BECKETT, recalled.

Direct examination resumed:

* * * * *

[1591]

The rate schedule P-30, issued first in October, 1935, became effective January 1, 1936 as part of a general rate reduction. It has not been—has not since been changed except to conform with certain changes in territory, although there was no formal decision, but rather there were, of course, the usual discussions with the Commission's staff. In these discussions it was pointed out that

P-30 would mean a reduction to large industrial customers then being served on P-5, providing they would sign contracts agreeing to take service for periods of 5 years. The purpose was to meet competition of Diesel engines and other isolated electric generating plants and to promote

[1592]

additional business. The reason for the 5-year contract was to stabilize the business thus secured and insure to the Company at least that period of time in which its fixed charges would be covered.

Putting the same thing the other way; business of short duration and customers who might wish to take the Company's service for a short period and then change over to generating plants of their own or some other source of power would pay the higher rate. The cost of supplying such short term service is, obviously, high because of the poor long term load factor.

Q. Mr. Beckett, in your opinion as Rate Engineer of the Company, is it desirable and proper that the Company make effective P-31 schedule at the present time and, if so, for what reasons? A. Yes, I believe it is desirable, first, because—and of this I do not know of my own personal knowledge, but am informed—it is necessary to hold the business. And I do know of my general knowledge and studies that it is better to hold any business at a somewhat reduced rate than not to hold it. The proposed P-31 fits logically into the Company's rate structure. It is similar in form to three rate schedules which have been established for a long time and found satisfactory. Those, of course, are the three I just been comparing with P-6. While filing at this time is made to meet a particular situation, that is, the threatened loss of business which the

[1593]

Company has long // served, it is not out of line with the general policy which has been followed in rate making of this Company and which may be regarded as anticipating, for this particular group, what probably would be done at some later date anyway.

It is obviously better for the Company, and eventually for the customers, that this business be retained, though at a somewhat lower rate, than that it be lost altogether, for if it is lost the facilities already installed for supplying it would remain idle in whole or in part for a certain length of time. Fixed charges and expenses, except for fuel and purchased power would remain the same, but must be spread over a smaller number of kilowatt hours and so with an increase in per unit cost to be borne by all other customers.

That, of course, is on the assumption that the business was lost. The 5-year contract term is justified on the same ground, namely, to protect existing business from competition, to stabilize costs and to make possible the rendering of better service at lower unit costs, for if the Company is assured of certain business for a reasonable time in the future it can afford to install additional facilities and make improvements on a long time basis which otherwise it could not do.

This would result in better service to the customer as well as lower cost to the Company.

Q. Mr. Beckett, as Rate Engineer of the Company, did

[1594]

you // recommend that the Company establish the P-31 schedule in force and effect without the inclusion of the requirement for a contract for a 5-year term? A. No, sir.

Q. Would you recommend that it be made effective with its present rates for any term less than the 5-year period? A. I had not studied that. There might be for a few months, of course. You say, "any term less".

Q. Would you recommend it be made effective for a one year term? A. Well, it should be a long enough term to accomplish the purposes I have just recited, and I think 5 years is a minimum term for that purpose. It should preferably be longer than 5 years.

Q. Mr. Beckett, you are familiar with the provisions of the contract between the Pacific Gas and Electric Company and the City of Redding, dated July 3rd, relating to electric service by it for resale purposes, which is now before the Commission, are you not? A. Yes, sir, I have read the contract.

Q. And the record shows that contract provides charges to Redding slightly lower than the P-31 rates, namely, 5 per cent discount, is that a fact? A. Yes.

Q. In your opinion, is this special discount, under the facts and circumstances, proper? A. Well, it is proper if two tests are met, first, that it is necessary to retain this business, and I understand that was so from those who were in negotiation with the City. Second, if the result

[1595]

does not produce such a low revenue and low rate that it would not meet the costs which might be eliminated if the business were lost.

I am sure from my general knowledge that it meets that latter test. I might put it this way: The same reasons which have been given to justify P-31—I mean which I have given—apply also this special contract. The special discount of 5 per cent was found necessary, as

I understand it in this instance because of the special circumstances that Redding is located within 10 miles of Shasta Dam and about 2 miles from the Keswick plant of the Central Valley Project as proposed. It was obvious that the Bureau of Reclamation could extend its lines to Redding at a low cost.

Q. In your opinion, will the P-31 schedule as proposed at this time return to the Company its full allocated average cost of rendering the service? A. I believe not. Depends, of course, on what is meant by "allocated cost." That is a much controverted matter on which engineers differ.

Q. Well, what have you in mind, if anything, in that respect regarding the contract with the City of Redding. Would that return the Company its full allocated average costs? A. No, by—if by "allocated costs" you mean what is generally meant by that term, that is, taking the system

[1596]

business as a whole and proceeding to allocate to // different classes, as is usually done by the method which is usually used in rate making.

Q. Now, I call attention to the 5 per cent special discount to the City of Redding, and you pointed out that by reason of Redding's location close to the source of supply of the Shasta Dam that that was a matter to be taken into consideration. Have you anything further to add in that regard? A. Yes, I would like to say this about the matter of cost in regard to both P-31 and the special contract for Redding. As regards cost to the Company schedule P-30, when it was filed nearly 10 years ago, was not expected to cover its full allocated average cost. The same is true of P-31. No study has been made to determine this fact, but from my general knowledge I

am convinced that P-31 will more than cover those costs which can be saved if the business involved were lost.

In regard to Redding and the 5 per cent special discount it is to be noted that Redding's location is favorable for service not only by the Bureau, but also by the Pacific Gas and Electric Company for the Company has a larger amount of power available nearby and this power is being transmitted some 200 miles to the San Francisco Bay region and down into the San Joaquin Valley, and there is a saving of more than 5 per cent in energy losses alone when a part of that power is delivered nearby, as in the case of Redding, compared with the deliveries to the other cities in-

[1597]

volved in this proceeding.

Q. Now, from a general rate making theory or practice is it your view that proximity to source of supply should ordinarily be taken into account in the fixation of rates? A. It is not, and in my opinion it should not. For the sake of uniformity in rates we can not, of course, as has been often said, make rates to exactly cover the cost in each individual case; we make them by classes of customers and attempt to make them cover, on an average basis, the cost to those who have been put into this or that class or group. Here we are dealing with the resale customers and they are scattered up and down the system and I think it is better rate making policy, and indeed the policy almost universally followed, that they be made uniform for the several customer groups, and that eliminates consideration of closeness to this or that power station or source of power supply or other local circumstance. But, here, in the case of Redding, we were forced to depart from the regular schedule and isolate one load from the others.

Q. In your opinion, will the filing and placing into effect of the schedule P-31 and its rates, terms and conditions, impose an added burden upon the customers remaining—upon the Company's remaining customers? A. No, sir. On the contrary, it will, eventually, through the rate making process, be beneficial to the Company's customers as well as to the Company. For the time

[1598]

being, until there is some general change in rates obviously there can be no burden upon them because their rates remain unchanged and the only effect of this reduction falls upon the Company and its stockholders.

Q. And does your answer, same answer apply with respect to the making effective of the rates contained in the contract with the City of Redding, which is slightly lower than the P-31 rates? A. Just the same.

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[1599]

Cross-examination:

Mr. Wehe: In reference to the 5-year contract requirement Mr. Beckett, first, directing your attention to schedule P-30, what, in your opinion, was the primary reason or justification for a 5-year contract requirement when that schedule was initially filed?

A. I have already said; I think I can do no better by way of answer than to repeat. The 5-year contract term is justified on the same grounds, that is, I mean the competition, namely, to protect existing business from competition, stabilize costs, make possible a rendering of better service at lower unit cost.

Q. Having in mind, Mr. Beckett—and I think you do have in mind, that the Railroad Commission of the State has heretofore stated that it is generally opposed to long term contracts, is there not some other reason other than that you wanted a 5-year contract in order to stabilize your business that the Commission permitted a 5-year contract in reference to the P-30? A. Well, of course, I do

[1600]

not // know what reason influenced the Commission other than those that we advanced, and as the reasons advanced for P-30 were nearly 10 years ago, with no written record, I am answering upon a rather long range memory. I do have clearly in mind, though, what was in my mind and has been in my mind year by year in rate making, it is a benefit to the Company and its customers, eventually, if the business is thus stabilized, if the Company can meet competition and in this way generally obtain such business always and retain it, as can be had at less than the incremental cost, although at rates somewhat lower than those applicable—lower than the allocated cost basis and lower in percentage of return, whichever way you choose to look at it, than other rates, because by so doing—I want to make that very clear, an important principle—very similar, by the way, to the basis of class rates in railroad work—by obtaining additional business on existing facilities and thus using the existing facilities jointly a profit results to the Company by reason of the fact that the incremental revenue is more than the incremental cost. Then, through the rate making process, after a short time when rates are overhauled next by the Commission or otherwise, either greater reductions can be made to the previously existing customers and classes, or less increases will be found necessary.

Q. I think your answer now makes it clear, Mr. Beckett. Again, to bring it out in the open, from the customers'

[1601]

viewpoint wasn't the primary reason that your Company could go to prospective customers or an old customer and say, "We will give you the rates under F-30 providing you sign up for a 5-year period," for the reason that those rates are lower than have heretofore been available, and in fact, are lower than the cost justifies—full costs justify, and isn't the basis on the basis of giving the customer something that he could not otherwise obtain, Mr. Beckett?

A. Well, I should say that would be so from the customers' point of view. I think that perhaps the cost angle, Company cost, would not appeal to him and I doubt if we would present that to him, but what would be presented to him is that in return for giving us something, namely stability in our business upon which we could count, then we give him something.

Mr. Duval: By "stability" you mean the 5-year contract?

A. Yes, a minimum of 5 years, I should say. Of course, I might say this, that it is only in the larger business, the individual customers whose revenues are relatively large that this is important because in the smaller ones the dropping of one and taking on of another here and there goes on all the time much as people move about from one house to another, does not change the load on the Company's system much, even in each locality, but the dropping of a large customer would do so.

Mr. Wehe: So in the final analysis by filing

[1602]

P-30, or // a tariff of that character, on the one hand, your customers get something more than they normally would get under a regular rate tariff that does not require a contract, is that right? A. By "Something more" you mean better and—

Q. Yes. A. —lower. Getting the same service for less money.

Q. Now, coming to the rate tariff in question that has been suspended, namely, P-31, is that the essential reason that a 5-year contract is justifiable on that tariff, and not on schedule P-16? A. Yes. I am not quite sure what you mean by "the essential reason". I have stated the reasons; to be sure we do not get away from them I would like to state them again. To stabilize the business, to make possible the rendering of better service at lower unit cost, for if the Company is assured of certain business as reasonable time in the future it can afford to install additional facilities and make improvements on a long time basis which otherwise it could not do.

Q. Right there, Mr. Beckett, what additional facilities do you have in mind in the service of the customers that you have testified to and Mr. Pollard testified to? A. Until, now, for some years, the Company has felt reasonably assured holding these resale customers. Going back 10 years or more there was danger of losing this or that one to isolated plants. That is to say, the City of Palo

[1603]

Alto, City of Alameda might put in its own electric // generating plant. But gradually the costs of construction have risen, and particularly during the war period, so that the

business was stabilized and no 5-year contract was necessary. But now we are—the war is over, we are going to a period in which two things are expected, first, is the competition, perhaps of the Federally owned transmission system at rates such as have been put in the record this morning.

Mr. Duval: You mean production system?

A. How is that?

Q. You mean production system? A. I said "transmission system". It is transmission to the customers that we are, of course, concerned with in competition, and in addition to that also is the possibility that the isolated plant threat may come up again after the war and after materials, engines, possibly, may be improved, more efficient engine, possibly lower costs become available so, again, this 5-year contract then becomes desirable.

Mr. Wehe: The same reason, Mr. Beckett, might apply to other power tariffs, would it not, it would be desirable from your viewpoint to tie up customers under schedule P-1 or schedule P-15, would it not?

A. Not so much. I said a little while ago it is the larger ones that are important in this matter of stabilizing, because, as to the smaller ones—well; first of all, the value of the service nowadays is relatively high for the

[1604]

smaller ones in comparison // with any engine or other source of that sort, and if we lost one or two here and there, why, we take on others here and there so that we do not have as much equipment lying idle. Generally

the come and go of small customers has little effect upon our costs. It has some, but the system of one schedule for the rank and file of small customers has worked very well.

By the way, in commenting upon the Commission's policy of looking askance at long term contracts, I believe that policy has reference more to the small customers, which is my opinion from my knowledge of following proceedings here. I think contracts are generally looked upon with disfavor by the Commission if the amount of the load involved is large, and particularly where a special substation serving one customer only, or something of that nature is involved, whereas, in the rank and file of small customers it is my understanding the Commission has not looked with favor upon contract.

Q. You have stated, I think, that while you have not given any exact figures, but in your opinion, Schedule P-31 will not return fully allocated costs to your company based upon present conditions of costs, is that right? A. Before answering that I would like to say one other thing about contracts just to point out that whereas the Commission's policy long ago, and I think wisely, was that a contract should not be made a con-

[1605]

dition precedent to service, that we are not now attempting to deny service to any customer because he will not sign a contract. He merely is given the option of a lower rate for a 5-year contract. I want to make that point clear.

Now, returning—

Q. Pardon me. Then, from the customer's viewpoint it would probably follow that the sole reason that that

customer would sign up for a 5-year contract would be because of the opportunity to receive the lower rate under P-31 or P-30, isn't that right? A. Well, I would imagine that would be—might be his reason right now, but I would think that he also might desire stabilization, assurance that he will have service at this lower rate for a period of at least 5 years. Of course, the other rate is open to him at any time so there is no attempt to force him to sign something in order to get service at all. I am not sure that I understood your last question; I hope that answers it.

Q. It did. I think you had a reply that you were going to make. A. Would you please repeat the question now about P-31?

Mr. Wehe: Mr. Reporter, may I ask you to read the question?

(Record read as follows: "Q. You have stated, I think, that while you have not given any exact figures, but in your opinion, Schedule P-31 will not return fully allocated costs to your company based

[1606]

upon present conditions of costs, is // that right?")

A. That is right.

Q. But you also stated, I think, that you were certain that it would return more than out-of-pocket cost? A. Yes. Of course, by the way "out-of-pocket cost" now should be changed to read the savings—the amount that will be saved out-of-pocket, so to speak; if that is what you mean by "out-of-pocket cost" our investment is already made and I am thinking of the amount of that, part of that investment and associated expense that can be saved if we lose the business.

Q. What investment, again, do you consider as being saved? The carrying charges on what investment? A. If we lost the business we would have very little to save and obviously the revenue that we retain if we retain the business more than covers that. Therefore, it is justified.

Q. Mr. Beckett, if I may make my question a little more to the point, I think your answer heretofore suggested that you included not only the investment associated with the distribution costs, but likewise went back to production and transmission. If you did I am asking you whether or not you think all of them are proper to include? A. Why, yes, for an indefinite length of time—I mean an uncertain length of time. We have now transmission and distribution system, substation, all that is necessary to supply these customers. Should we lose these customers we still have the investment, and if then we lose the rev-

[1607]

enue the load will fall // off a little over the jointly used facilities which are now necessary in that supply. What would we save in the way of costs? Immediately nothing in the investment, it is already there, we can not take it out. The only investment we might save would be in case we can move away a bank of transformers and utilize it somewhere else, possibly a few poles or a piece of line serving a particular customer only. The rest of the expenses, operating expenses or maintenance, what could be saved, probably you could not find it, and I can, from my general knowledge, say that little would be saved, particularly at a local substation supply the customer in question. Take, for instance, Roseville as an example, there is a small substation supply the municipality of Roseville and no other customer. If we lost the business—if we

do lose the business of Roseville then that substation can be salvaged and the investment salvaged at salvage value and the expenses we now incur for that service would be eliminated so that our loss of net would be mitigated, be something less than the loss of the gross revenue. Back of that is a line a few miles long, 11,000 volts, emanating from another substation which serves jointly this load and other loads. We could salvage nothing there because that is jointly used, it would not pay to take it out and put in a smaller one, probably. And back of that is a transmission line, 60,000 volts coming down from Alta and Wise power plants, bringing power into the Sacra-

[1608]

mento system. It would stay just // the same; there would be a little less load on the conductors between Roseville substation tap point and Sacramento. After awhile, perhaps, that load would be restored by the growth of business in Sacramento or in the load on the substation, the second one I referred to jointly used might, after awhile, be restored, thus this capital would come back into use as fully as it now is. But how long—and in the interval there would be a loss to the Company by reason of this capital standing partly idle—and how long that would be it is quite problematical to say.

Q. That is what I had in mind, Mr. Beckett, that the normal growth in your load requirements would soon absorb production and transmission capacity made idle by the loss of these comparatively small loads. A. As I say, an uncertain length of time, varying greatly in each individual instance.

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EXCERPTS FROM EXHIBIT 11

[1611]

PACIFIC GAS AND ELECTRIC COMPANY
245 Market Street
San Francisco 6, California

May 13, 1946.

Received
May 15, 1946
FAT
V.D.A. 200
G.G.D. GD
F.G.B. L

Mr. F. A. Tracy, President,
Sierra Pacific Power Company,
21 East First Street,
Reno, Nevada.

Dear Mr. Tracy:

I have just finished preparing a report on our recent conferences with you in Reno, and I am enclosing herewith a copy thereof which I would be glad to have you review and point out to me any inaccuracies or misunderstandings which I may have inadvertently incorperated therein.

I want to express my appreciation for your kindness and cooperation on this occasion.

Sincerely yours,

/s/ James F. Pollard
JAMES J. POLLARD
Manager Commercial Department.

JFP:H
REF

EXCERPTS FROM EXHIBIT 11 (Contd.)

[1612]

PACIFIC GAS AND ELECTRIC COMPANY
Commercial

SIERRA PACIFIC'S POWER SUPPLY PROBLEM.

May 13, 1946.

(extra)

Mr. R. E. Fisher.

This is a report on field investigation made during the three days of May 5th to 7th in company with Mr. V. M. Marquis.

Since the principal question involved is an additional source of power to meet the growing demands on Sierra Pacific system we tried to cover the three possible routes for an additional feeder for PG&E system, should such ultimately be determined to be a solution.

On our way to Reno we drove through the Feather River Canyon via Groville, stopping at Buck's Creek and at Caribou power plants and following our present 44 KV line from Caribou to Quincy and the Plumes Sierra 12 KV line from Quincy to Portola and Hallelujah Junction. This gave us a good idea of the distances and the terrain and clearing problems that will be involved in raising the voltage on the Caribou line if that route were selected.

On the return trip we first drove from Reno at Truckee and thence to Spaulding Dam by way of Donner Summit, stopping at Truckee for a look at the Sierra Pacific substation there, noting the metering station at Summit where we now deliver to Sierra Pacific over the two present 60 KV lines from Drum and Spaulding. The nominal capac-

ity of these lines is 15,000 KVA each but we were told by Messrs. Tracy and Armstrong that 13,000 on one and 14,000 on the other is the most either has ever delivered when the other was out of service.

With all of their own hydro plants in operation (total capacity 10,000 KW), they have already reached peak demands on our system of 19,800 KW which is more than either one of our lines could carry alone if the other were for any reason out of service.

These lines run parallel to each other over Donner pass at an elevation of from 6000 to 7100 feet above sea level. The terrain is heavily wooded in part and subject to deep snows and heavy lightning and wind storms which do occasionally put one line out of service and on at least one occasion, we were told both lines were put out of service by heavy wind.

[1613]

We turned back at Lake Spaulding and again went to Truckee and then around the South Shore of Lake Tahoe, noting the 13 KV Sierra Pacific line fed from Truckee which serves all of the resorts and houses along the Lakeshore, thence through Meyers over Echo Summit into the American River Canyon which we following all the way to Placerville. We noted the terrain and the development of summer houses and resorts along this route from Echo Lake to Pacific House, a distance of thirty miles along which installation of a 12 KV line has already been approved for construction scheduled to start in the spring of 1947 and to be finished before the following winter.

It has been suggested that this line might be constructed for 60 KV or 110 KV with 12 KV under built on the same poles and thus feed into the Sierra Pacific system at the

south end of Lake Tahoe. This would of course require their rebuilding their line from Truckee along the south shore of the Lake to this junction point, a distance of some 45 miles from Truckee to Meyers. The distance is just about the same from Eldorado Power house to Meyers.

During the day we were in Reno we visited all five of Sierra Pacific's little "river run" power houses scattered along the Truckee River for 20 miles from Reno west. Heads on these plants vary from 43' feet at the plant in Reno to 126 feet at Farad, the most westerly one. These plants are very old. All but two of them have old style inefficient turbines. One have been rebuilt and without increasing the head their capacities have been nearly doubled. Similar improvements are contemplated at the other three with possibility of increasing their aggregate capacity by 2000 KW giving them a total for all five plants of 12,000 KW.

A couple of years ago Sierra Pacific made a forecast of its future growth of load for the next ten years and assumed a uniform increase of 1250 KW per year or a total increase of 10,000 KW between now and 1954. In spite of the end of the war and its effect of reducing demands of military installations and activities, the Sierra Pacific system load has already exceeded the growth as estimated two years ago.

Mining, which formerly constituted a substantial load on this system prior to the time it was shut down by war restrictions, will add 3000 KW of peak demand when conditions are right for its resumption. The time when this will take place is dependent on favorable labor costs and supply and a favorable price for gold and silver. This is variously estimated at from 2 to 4 years.

Even without the return of the mining load, Sierra Pacific estimates that by 1948 its peak will have reached 32,000 KW and with mining back in full swing by then it would be 35,000 KW. Under these conditions and if their own hydro plants are improved to the limit of their capacity (aggregate 12,000 KW) they will need from 20,000 to 23,000 KW from outside sources.

[1614]

Obviously they must begin now to definitely plan for some means of taking care of this situation to be ready for it within two years. This is the reason we were asked to make a study now and advise them as to what we can and will do to furnish an additional source of power, where and under what terms.

While we were in Reno Mr. Marquis secured data as to voltage regulation under varying conditions of load, power factor regulation, supply of wattless current by Sierra Pacific Hydro plants and other technical data which will enable him to determine the most feasible route, voltage and cost of an additional transmission line to supply the future needs of this system from PG&E system. This will require further consultation with the Sierra Pacific people because they will have to spend considerable sums of money for changes in their transmission system and substations on their side of any new point of delivery that might be established.

When the engineering department shall have determined the best method of supplying additional capacity and furnishes an estimate of cost, we will then be in a position to work out the terms of a revised contract and in consultation with the rate department determine a rate to be quoted therefor.

There are other possible sources from which Sierra Pacific might secure additional power:

1. Build their own steam plant at Reno.

2. Connect with Boulder Dam transmission line at Eureka, Nevada.

3. From Federal power plants which may be included in program now being developed by the Army engineers to control the high water level of Lake Tahoe.

4. From a high voltage transmission line through Nevada to tie Bonneville and Grand Coulee to Boulder, as proposed by the Bureau of Reclamation.

5. Development of a chain of small hydro plants proposed to be developed by the Bureau of Reclamation for the utilization of the meager waters of Nevada for irrigation projects and incidental power generation. (Studies now under way).

1. *Steam Plant at Reno:* A study of this project was made some years ago but was not adopted because of the high cost of fuel and the small amount of load then required over and above the capacity of their base load hydro plants. Oil price now is $2.05 per bbl. f.o.b. Reno and with modern high efficiency steam plant design they believe they could make all of their own power at a lower cost per Kw. Hr. than they are paying PG&E if they could be relieved of their present contract with us which

[1615]

has until 1954 yet to run although they have not // made any thorough study of steam plant possibilities recently.

2. *Connection with Boulder Dam:* There has been some talk of a line from Boulder Dam to Eureka which is approximately 333 miles almost due north of Boulder Dam and is about 210 miles east of Fallon. This line would serve eastern and southern Nevada for lumbering and mining enterprises and would enable the State to utilize the share of Boulder power to which it is entitled viz. approximately 18% of the total available. There appears to be very little development along this route at present to warrant such a line and the 210 miles that Sierra Pacific would have to build to tie into it at Eureka would also traverse barren and undeveloped territory. This is not a very promising source of power for Sierra Pacific.

3. *Federal Plants Proposed by Army Engineers Coincident with Lake Tahoe Flood Control:* Study now under way by the Army engineers appears to be the most promising of any of the federal power development sources to which Sierra Pacific might look. There is much complaint on the part of property owners around Lake Tahoe because of damage from high water when the lake level reaches the maximum now maintained by the Army engineers who control it. Their present plan is to lower this maximum by a foot and a half and store the extra waters in Prosser Creek below the Lake near Boca. In connection with this project it is understood that hydro power developments are possible to produce from 5000 to 9000 KW of capacity. Army engineers have not yet announced the results of their study but it is reasonably certain that something must be done to reduce the high water level at Lake Tahoe and it is very likely that the Army engineers plan or some modification of it will be adopted ultimately. However it is not likely that any power will actually be available from that source for several years.

4. *Tie Line from Boulder to Bonneville-Grand Coulee:* A high tension tie line between Boulder and the great government plants in the northwest, Bonneville and Grand Coulee is a definite part of the grand scheme of the Federal Power development enthusiasts led by the Bureau of Reclamation. The territory to be traversed through Nevada is so thinly populated and so meagerly developed that such a project would not be economically sound but economy is too frequently a matter of small moment to the Bureaucratic planners and with the State clamoring for the realization of anticipated benefits from its share of Boulder power, if Sierra Pacific's supply is in jeopardy of insufficiency from other sources, it might be a potent argument in Congress to secure funds for carrying out the Bureau's scheme. Sierra Pacific is no more anxious to see government ownership of power transmission and distribution than we are. This is another reason that they are so anxious to make suitable arrangements with us for additional capacity.

[1616]

5. *Federal Development of Irrigation and Power Projects in Nevada:* The Bureau of Reclamation is carrying on extensive studies of the possible development of a great number of comparatively small projects for development of irrigation reservoirs and power plants throughout the State of Nevada. It is unlikely that these plants and irrigation systems could pay their own way but with a free spending Congress it is conceivable that some or all of them might be approved and subsidized by Congress. The Bureau talks about 5 mill government power and compares this with the average of between 8 mills and 9 mills which is the price paid to us by Sierra Pacific and on this basis

it makes a very plausible story in its reports. This is one of the arguments that Sierra Pacific urges on us for a lower rate to them so as to minimize this advantage claimed by the Bureau in support of its otherwise fantastic schemes.

It is unlikely that the Bureau studies will result in action that will make any of these sources of power available to Sierra Pacific before their supply situation becomes serious.

Conclusion: It boils down to a question of a steam standby plant of their own at Reno or another supply line from PG&E preferably from a source other than Spaulding and the route via Donner Summit.

Rate: Messrs. Tracy and Armstrong feel very strongly that they ought to have some relief from the comparatively high rate that they are paying PG&E under their present contract made in 1939 and which still has 8 more years to run. They point out that their load has grown much more than anyone anticipated when the contract was written in 1939 as indicated by the fact that we then specified that if they should buy any part of their excess power requirements from anyone else without PG&E's consent they would have to pay us a minimum of $75,000 per year.

After five years their payments to us grew to $361,386 in 1944 and $356,605 in 1945. The average cost per Kw. Hr. purchased from us in 1944 was .825c and in 1945 was .883c. If the standby charge of $30,000 plus a minimum of $75,000 a year was accepted as sufficient or justify our investment in the necessary tie lines when the contract was made a total annual revenue now in excess of $350,000 must be profitable business for us.

They do not claim that they are operating at a loss because of this relatively high cost of purchased power.

They went through the war period in excess profits tax brackets. But what they do claim is that their rates to their customers must of necessity be so high as to discourage the development of industrial business that would otherwise be attracted to their service area. They are embarrassed because they are being constantly criticized by State authorities and civic commercial bodies because they are stifling the development of the State by maintaining such high industrial rates.

[1617]

Also they are subjected to embarrassment because their general service rates are so much higher than ours in adjacent service areas in California and the same odious comparisons are made by the people of Nevada just over the State line from our service areas in California. A third reason which they urge is that mentioned above in regard to comparisons contained in Bureau of Reclamations studies and those of Army Engineers wherein great advantages are claimed for government power at low rates per Kw. Hr. (whether economically sound or not) over the high rates for wholesale power delivered from our system.

We now have seven years experience with this business since we put in the second feeder line from Drum to Summit. They feel so strongly that they are injured by this rate situation, that I would recommend that the rate department be requested to review the entire seven years record and take into account the actual investment in transmission facilities and the value of the energy at the power house bus bar and determine just how profitable or unprofitable this business has been to PG&E. Such a study should be useful in arriving at a fair rate to be quoted for any additional service which we may ultimately

decide to offer them and which will have a bearing on their determination as to whether to build their own steam plant or buy from us.

While the development of Government power projects in Nevada is of secondary importance to us as compared to those in California, they are close enough to be of some importance to us and to that extent our interests are mutual with those of Sierra Pacific in this regard. I presume that we will desire to cooperate with them as much as we reasonably can in solving this problem.

Sierra Pacific's total system peak in 1944 was 24,700 KW; energy load 130,875,509 Kw. Hr. of which they purchased from PG&E 43,818,205 KW. Hr. with a maximum demand of 14,760 KW or an annual load factor of 33.8% and monthly load factors varying from 37.2% to 53.9%.

Corresponding figures for 1945 were: System peak 27,750 KW, system input 124,882,512 Kw. Hr. Purchased from PG&E 40,363,912 Kw. Hr. with maximum demand of 19,800 Kw, annual load factor 23.2%, monthly load factor varying from 28% to 44%.

JFP:HN

JAMES F. POLLARD.

CC: AFW VMM
WGBE ORD
YCS EAL
JSM

EXCERPTS FROM EXHIBIT 11 (Contd.)

[1618]

June 3, 1946.

Mr. James F. Pollard,
Manager, Commercial Department,
Pacific Gas & Electric Company,
845 Market Street,
San Francisco, California.

Dear Jim:

I appreciate very much your sending me a copy of your report on the Reno conferences in connection with our power supply. The report covers the situation very nicely. There are a few things however, I will mention, although none of them are very important.

In the fourth paragraph of page 1, statement is made that the normal capacity of the 60 KV lines is 15,000 KVA each, but that the most we have received over either of them has been 13,000 over one and 14,000 over the other. We have received as many as approximately 16,000 over one line but during that period we experienced most severe voltage trouble.

In the next to the last paragraph on the first page, the 19,800 KW demand occurred when our generation was down to approximately 7,500 KW on account of ice conditions. The ice condition is not an ordinary occurrence however.

Mention is made in the second paragraph on page 2 of the possibility of building a line to the south end of the lake from Truckee. In this connection, we should keep in mind that it is very doubtful that right of way could be secured around the lake shore for such a connecting line.

In the next paragraph on this same page, we have only a 43' head at the Reno plant instead of 70' as shown; also, only one of the plants has been rebuilt to date and the possibility of rebuilding others is unlikely for some time. The capacity after rebuilding would probably be closer to 11,500 KW than 12,000 KW.

[1619]

In connection with the discussion of Boulder Dam power, it might be well to think of the possibility of some of Nevada's portion of Boulder Dam power being exchanged with some other company for delivery of corresponding amount of power in the north. What I have in mind is that some of the cheap Boulder power that Nevada owns could be utilized in the south and through exchange, or a series of exchanges, we might be able to get some benefit here in the northern part of the state. This would of course, mean that we would still have to have another connection. An arrangement of this sort would discourage the Government from ever trying to get Boulder Dam power into this section directly. I don't know that any arrangement like this would be feasible, but I do know that some of the Colorado Commission members have been thinking about the possibilities.

In connection with the Army Engineers' studies discussed as Item #3 on page 4, I believe they propose to lower the level of Lake Tahoe 1.1' instead of 1.5'; also, the amount of power that might be developed in the future from this project depends on the location of the plant and the limits might be even lower than those you have mentioned.

I want to thank you for your interest in our power problem and we hope that something can be worked out.

Yours very truly,

s/ F. A. Tracy

F. A. Tracy,
President.

EXCERPTS FROM EXHIBIT 11 (Contd.)

[1630]

December 27, 1946

Mr. R. E. Fisher, Vice-President,
Pacific Gas & Electric Company,
245 Market Street
San Francisco 6, California

Dear Earl:

This will acknowledge your letter of December 20 outlining your Company's plan for recoppering the present two lines from Drum to Summit with 4/0 copper or its equivilent so that we will be in a position to meet our peak demands during this coming year's peak season.

As stated to you over the telephone we plan also to recopper both No. 8 and 21 lines from the Summit to Washoe with 4/0 copper as early as possible next year, and in any case to have the work completed on both lines before the 1947 peak season. We at first felt that the condition of the poles on No. 8 line would make it difficult to do the recoppering job without taking the line out of service for an extended period. We have now decided, however, that this work can be done during the coming year, so that by the time the 1947 peak season arrives, the recoppering job on both lines should be completed.

In regard to the installation of additional static capacitors on our system, in order to improve voltage conditions over peak periods, as I mentioned to you over the phone, we are looking into this further to decide just where the capacitors should be placed on our system and the total capacity needed to accomplish the desired results.

It is our understanding from your letter that the terms

and conditions of our present contract with you will apply to service without modification on account of the additional construction necessary on your part in connection with the recoppering of the two lines from Drum to Summit.

You state in your letter that the matter of further increases in delivery capacity over and above that provided for after the recoppering of the two present circuits, will be made the subject of further negotiations between us, as the matter is not immediately pressing. I believe that due to circumstances with which you are familiar, we should not delay our negotiations relative to a third line. We hope therefore, that you will find it possible to proceed with the submission of a proposal in this connection in the very near future.

Yours very truly,

/s/ F. A. Tracy
F. A. Tracy,

FAT/R

EXCERPTS FROM EXHIBIT 11 (Contd.)

[1631]

PACIFIC GAS AND ELECTRIC COMPANY
245 Market Street
San Francisco 6, California
January 22, 1947

R. E. Fisher
Vice President in Charge of
Public Relations and Sales

RECEIVED
January 23, 1947
Refer to Noted
FGB
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FAT

2/10/47

Mr. Frank A. Tracy, President,
Sierra Pacific Power Company,
Reno, Nevada

Dear Frank:

This is in reply to your letter of December 27, in which you advise that your program for taking care of 1947-48 peak conditions consists of (a) recoppering to 4/0 copper or equivalent your two 60 kv lines between Summit and Washoe, coordinated with the recoppering to the same size which we propose to do on our two 60 kv lines between Drum and Summit, (b) adding sufficient static capacitors with switches so that they can be switched in over the peak period in order to give better receiving voltage conditions. In this connection, our studies indicate that a minimum of 8,000 kva of static capacitors will be required. In your letter you did not state the amount of capacitors which you will install. We would be interested to know what this will be. You will undoubtedly be deciding this

point immediately as at the present time shipment is 6 to 7 months.

On the basis of the above recoppering program and on the assumption that you will adopt our recommendations with respect to static capacitors, we are ready to move forward with you so as to coordinate the work of both companies in order that our respective installations may be completed in time to meet your 1947-48 peak. The terms and conditions of our present power contract with you will not be modified on account of this additional installation.

With respect to facilities required to take care of your load requirements beyond the 1947-48 peak, we propose that a third circuit be constructed for 110 kv operation and that this Company construct that portion between Drum and Summit and Sierra Pacific Power Company construct that portion between Summit and Washoe or Reno, as it may elect, and install at the terminus of your line a 40,000 kva, 110,000 kva step-down transformer bank with necessary terminal equipment and a synchronous condenser.

The above installation could not be completed before the fall of 1949 since under present conditions shipment of insulators and hardware would not be made before the first quarter of 1949, deliveries of transformers run from 24 to 26 months, and synchronous condensers about the same. It is therefore important that if additional facilities are to be installed

[1632]

in time to take care of your 1949-50 peak, an early decision be reached on the above recommendation.

As a condition of our making this additional installation, we would want a new long-term contract for, say, 15

years beyond January 1, 1949 at substantially the same rates as those described in our present contract, except for the inclusion of an escalator fuel oil clause to take care of any future increases in the price of oil. Such a clause would provide that the energy charge under the contract at any time will be increased concurrently with increases above the present market price of fuel oil as regularly quoted or posted by the Standard Oil Company of California for tank car deliveries f.o.b. its Richmond refinery and shall be determined from the base rates in the present contract by adding .01¢ for each 5¢ (or major fraction thereof) that such price of oil is above $1.35 per barrel. The computation to be carried to the nearest .01¢.

I am not unmindful of your suggestion that instead of constructing a 110 kv line, consideration be given to the installation of a third 60 kv line. We are not at this time submitting a proposal on that basis because our engineers are firmly convinced that any further attempt to deliver additional power to your system at 60 kv is not sound either from an engineering or an economic standpoint. If such a proposal were to be considered, it would involve the installation of additional 60 kv transformer capacity to be installed by us at our Drum Power House and, if we were put to that expense, we are satisfied that the additional fixed charges that would have to be added to your present contract price would more than offset any saving to you in the capital expenditures required on your part to take delivery from the proposed 110 kv line. The additional power made available to you from another 60 kv circuit would be limited to approximately 15,000 kw as compared to delivery capacity of more than 40,000 kw that would be made available from a 110 kv line.

If you still feel that you would like to have an alternate proposal for the construction of a third 60 kv circuit, I

will ask our engineers to prepare one, but I believe that after you have thoroughly studied the situation you will agree that your requirements definitely point to the 110 kv program.

I believe that the most rapid progress can be made toward arriving at a mutually acceptable program if you can arrange to meet with your engineers and ours at our office in San Francisco at your early convenience.

Very truly yours,

/s/ R. E. FISHER

EXCERPTS FROM EXHIBIT 11 (Contd.)

[1633]

February 11, 1947

Mr. R. E. Fisher
Vice-President in Charge of
Public Relations and Sales,
Pacific Gas and Electric Company,
245 Market Street,
San Francisco, California

Dear Earl:

This will acknowledge your letter of January 22nd in regard to our program for taking care of our 1947-1948 peak load conditions.

In connection with the installation of the static capacitors; as I told you over the telephone, we included in our 1947 budget, which was approved by the company's direc-

tors at the January meeting an item covering the purchase and installation of 8,000 KVA of static capacitors. It is planned to have the majority of the capacitor installations either voltage sensitive or current sensitive so that they will come in over the peak, if needed. The majority of these capacitors have already been ordered and the remainder will be ordered very shortly.

It would appear that everything is in line, therefore, for you to proceed with plans for the recoppering to 4/0 copper, or equivalent, of your two 60 KV lines between Drum and Summit and for us to proceed with plans for the recoppering to 4/0 copper, or equivalent, of our two 60 KV lines from Summit to Washoe. I believe your men who are to handle this job should contact our men in the near future and arrange for coordination of the two jobs. In other words, we should get together and decide when the work is to be started and how it is to be carried on, having in view the minimum of disturbance to the delivery of power to us from your system.

We note from your letter that you have not prepared a proposal on the basis of a third 60 KV line in lieu of a 110 KV line. As stated to you over the telephone, we would appreciate receiving, as soon as possible, a proposal on a third 60 KV line so that when we get together with you in San Francisco for a final discussion of the entire question of the third line, we will have the whole story before us.

Yours very truly,

/s/ F. A. Tracy

F. A. Tracy,
President.

FAT:LB

EXCERPTS FROM EXHIBIT 11 (Contd.)

[1634]

PACIFIC GAS AND ELECTRIC COMPANY
245 MARKET STREET
SAN FRANCISCO 6, CALIFORNIA
APRIL 1, 1947

RECEIVED

R. E. Fisher
Vice-President in Charge of
Public Relations and Sales

April 3, 1947
Refer to Noted
FAT
VDD Von
FGB

Mr. Frank A. Tracy, President
Sierra Pacific Power Company
Reno,
Nevada.

Dear Frank:

In response to your request of February 11, our engineers have made a further analysis and study to determine the conditions under which we might be able to add more 60-kv circuits to serve your increasing load requirements beyond the time when the two 60 kv lines presently being recoppered become fully loaded. This plan is an alternate one for comparison with the proposal to take care of such additional requirements by installing a 110 kv line as proposed in our letter to you of January 22.

The program upon which this proposal is based is as follows:

1949	Install 45,000 kva 110/60 kv substation at Drum	$ 375,000
	and a 4/0 60 kv line and oil circuit breaker	370,000
		$ 745,000
1952	Add 45,000 kva 110/60 kv to Drum Substation	$ 285,000
1955	Add another 4/0 60 kv line and oil circuit breaker	$ 370,000
	Total	$1,400,000

Our Rate Department's analysis indicates that for power supply at 60 kv as outlined above, our costs would be $63,000 per year greater than those incurred for the 110 kv delivery. In either case, we would expect a 15 year contract commencing in 1949, or at such time as the third line is made ready for service. In the case of the 60 kv plan, an additional charge of $63,000 per year will be necessary.

It is our considered opinion, as we have before stated, that the 110 kv program is much more sound from both the engineering and economic standpoints. Better voltage regulation and smaller condenser requirements would be obtained at 110 kv.

The 60 kv plan with necessarily greater number of circuits involved, would entail serious right of way difficulties. Transmission losses will be less for both parties at 110 kv.

[1635]

While your initial investment is greater at 110 kv, the combined total cost of supply necessary to meet the expected growth of your load for the next ten years will be less.

A single 110 kv circuit will deliver 44,000 kw, whereas each 60 kv circuit under present input voltage conditions will deliver only 14,500 kw, and, if supplied by a separate higher voltage transformer bank at Drum, will be able to deliver 20,000 kw.

In considering these two alternate proposals, it should be borne in mind that the two present 60 kv lines supplied as they are by the 30,000 kva bank at Drum have a combined delivery capacity of 29,000 kw and the proposed additional single circuit 110 kv line with a capacity of 44,000 kw will give you a total available supply of 73,000 kw from our system. If one of the 60 kv lines is out, this would be reduced to 58,500 and if the 110 kv circuit is out, the available capacity would be but 29,000 kw. If you want to be assured of absolutely continuous service when your demand on P.G. and E. exceeds 29,000 kw, it would be necessary to install two 110 kv circuits, which was not contemplated in my proposal of January 22. The cost of installation of an extra 110 kv circuit is estimated at $538,000, and the fixed charges on this investment would have to be added to the rates quoted in my January 22 proposal.

Likewise, under the program of an all 60 kv delivery to give corresponding standby service to assure deliveries when one circuit is out, a fifth 60 kv circuit would have to be added in 1961. The estimated installation cost of this would add another $370,000 to our investment over the total hereinabove quoted, and the fixed charges on that amount would have to be added to the $63,000 annual increase in the present rates to justify it.

I am attaching two tables showing the estimated load, generation, and demands of your system on ours from 1947 to 1964, and the relative transmission losses as between 60 kv and 110 kv deliveries, upon which our studies were based.

I will be glad to arrange a meeting with you and your engineers to discuss with our people all the details of this problem at your convenience.

With best personal regards; I am

Sincerely yours,

/s/ Earl Fisher

REF:H

EXCERPTS FROM EXHIBIT 11 (Contd.)

[1636]

TRANSMISSION LOSSES

FROM DRUM TO SUMMIT FOR NORMAL PEAK DEMAND OF SIERRA PACIFIC POWER CO.

(All circuits 4/0 copper)

Year	S.P.P. Co. Peak Normal Demand MK.W.	Transmission Losses to Summit —Kilowatts) 1-60- KV	II-110 KV and Existing 60 KV
1949	33	741	395
1950	35	833	444
1951	38	982	524
1952	40	1088	353
1953	43	1255	407
1954	46	1440	467
1955	49	1224	529
1956	52	1380	596
1957	55	1540	667
1958	59	1776	767
1959	62	1960	848
1960	66	2220	961
1961	70	2000	1080
1962	74	2235	1208
1963	79	2550	1377
1964	83	2810	1519

EXCERPTS FROM EXHIBIT 11 (Contd.)

[1637]

Estimated Load, Generation and Demand on Pacific Gas and Electric Company of Sierra Pacific Power Co.

Sierra Pacific Power Company—M.K.W.

Year	Estimated Peak Load	Normal Generation	Demand on PG&E Co. (Normal)	Demand on PG&E Co. (Maximum)
1947	37	10	27	31
1948	41	10	31	35
1949	43	10	33	37
1950	45	10	35	39
1951	48	10	38	42
1952	50	10	40	44
1953	53	10	43	47
1954	56	10	46	50
1955	59	10	49	53
1956	62	10	52	56
1957	65	10	55	59
1958	69	10	59	63
1959	72	10	62	66
1960	76	10	66	70
1961	80	10	70	74
1962	84	10	74	78
1963	88	10	79	83
1964	93	10	83	87

(1946-1964 growth estimated approximately 6% per year)

W.R.J.
3-10-47

EXCERPTS FROM EXHIBIT 11 (Contd.)

[1638]

COPY

PACIFIC GAS AND ELECTRIC COMPANY

May 7, 1947

Mr. Frank A. Tracy, President
Sierra Pacific Power Company
Reno, Nevada

Dear Frank:

It has been more than a month since I wrote you on April 1, transmitting an estimate of the cost of installing additional 60 kv circuits to supply your load after 1949 and proposal as to the increase in your contract rates in order to justify the necessary investment on our part.

You asked for this information in your letter of February 11 for comparison with the program of supplying additional power at 110 kv as outlined in our letter of January 22.

While I appreciate that you require some time for your engineers to analyze and study both of these proposals, I am concerned about the possible effect of delay in arriving at a conclusion, because of the extremely long time required in order to obtain deliveries of the necessary transformers, insulators and other critical materials involved.

I hope that you will be able to arrive at a decision in the near future so that if we are to make the proposed installations in time for you in 1949, we may proceed to place the necessary orders for material and equipment immediately.

Yours very truly,

R. E. FISHER

REF:MG

EXCERPTS FROM EXHIBIT 11 (Contd.)

[1639]

PACIFIC GAS AND ELECTRIC COMPANY
245 MARKET STREET
SAN FRANCISCO 6, CALIFORNIA

RECEIVED
JUL 29 1947
Refer to Noted Date
F.A.T.
V.D.A.
Answered
Filed

July 28, 1947

Mr. F. A. Tracy, President,
Sierra Pacific Power Company,
Reno, Nevada.

Dear Mr. Tracy:

Having heard nothing further from you since our telephone conversation of June 13th, we are concerned for fear any further delay may make it impossible for us to make ready to increase deliveries of electric power and energy to you in time for your anticipated increased load during the winter of 1949-1950. It is imperative, if we are to meet that situation, that some definite program be decided upon in the immediate future in order that orders may be placed for necessary materials and equipment. We have furnished you with all the information which you have requested as to the conditions under which we will be willing to install a third transmission line either at 110 KV or 60 KV, as you may elect, and we are awaiting your next move in this matter.

Very truly yours,

/s/ JAMES F. POLLARD
James F. Pollard
Manager, Commercial Department.

JFP:hit

EXCERPTS FROM EXHIBIT 11 (Contd.)

[1640]

PACIFIC GAS AND ELECTRIC COMPANY
245 MARKET STREET
SAN FRANCISCO 6, CALIFORNIA

D. D. SMALLEY
Vice-President
in Charge of Operations

July 29, 1947

RECEIVED
JUL 30 1947
Refer to Noted Date
F.A.T.
V.D.A.
Answered
Filed

Mr. Frank A. Tracy, President
Sierra Pacific Power Company
Reno, Nevada

Dear Sir:

This is in reply to your inquiry when you were in my office last week relative to the proposal of supplying your increasing load requirements at 110 kv.

In answer to your question on the economics of installing step-type regulators as against transformers with load ratio control, our Engineering Department reports that the cost of four transformers so equipped is about the same as providing regulators. However, we prefer to use regulators as they can be set on a neutral position and cut out of service without interfering with the power supply

when it is necessary to work on them. This is not possible with the other installation where it is necessary to perform work on the load control equipment.

Based on using 4/0 copper equivalent for a 110 kv line 61 miles in length with the Drum voltage at approximately 122 kv, we have calculated the voltage at Washoe to be 110 kv for 45,000 kw receiving end power at a 95 lagging power factor. We anticipate that the voltage would vary from the above figure at full load to approximately 118 kv at light loads.

With respect to your question concerning the $63,000 additional charge for supplying this load under the 60 kv plan, we have referred this matter to Mr. Pollard and you no doubt will hear from him in a few days. If you desire any additional information, please feel free to call upon me.

Very truly yours,

/s/ D. D. Smalley.

Smalley will have Drum transformer sent to us.

DDS: HB

EXCERPTS FROM EXHIBIT 11 (Contd.)

[1641]

PACIFIC GAS AND ELECTRIC COMPANY
245 Market Street
San Francisco 6, California
August 6, 1947

RECEIVED
AUG 8, 1947
F.A.T.
V.O.A.
Answered
Filed

Mr. Frank A. Tracy, President
Sierra Pacific Power Company,
Reno, Nevada.

Dear Frank:

I have been informed by Mr. Smalley of your request for information concerning the basis of the $63,000 additional annual charge for supplying your load under the 60 kv plan over that which would be required under the 110 kv plan.

This cost of service was first calculated for the 110 kv program by taking into account the total new investment that will be required by us under the 110 kv plan, together with the investment which we already have in lines used exclusively for your service. We then calculated fixed charges on this total investment, and revenue and expenses based upon the estimated growth in your load year by year for the following 15 years. This calculation re-

sulted in a deficit averaging $40,000 per year below a 6% return on our investment for the 15 year period without any change in the present rate schedule as set up in the existing contract. We indicated our willingness to undertake to make the necessary investment under this plan and under the present contract rate provided you would execute a new contract for a 15 year period including a fuel oil escalator clause.

We then followed the same general procedure in regard to the 60 kv plan under which the investment on our part will ultimately be $862,000 more than it would be under the 110 kv plan. Line losses between Drum and Spaulding and Summit will also be greater. We found that the average deficit below a 6% return on our investment, assuming the same increments from year to year in load, would amount to about $103,000 per year. The difference between these two figures of $103,000 and $40,000 is the $63,000 which we indicated we would expect in the way of an increase in the rate under the 60 kv plan.

I trust this will serve to answer your question but if not I will be glad to hear from you again.

Yours very truly,

/s/ James F. Pollard
James F. Pollard
Manager Commercial Department

JFP:H

EXCERPTS FROM EXHIBIT 11 (Contd.)

[1642]

PACIFIC GAS AND ELECTRIC COMPANY
245 MARKET STREET
SAN FRANCISCO 6, CALIFORNIA

SEPTEMBER 3, 1947

RECEIVED
SEP 5 1947
Refer to Noted Date
F.A.T.
Answered
Filed

Mr. Frank A. Tracy, President,
Sierra Pacific Power Company,
Reno,
Nevada.

Dear Frank:

My follow-up system again brings to my attention this morning the matter of additional delivery capacity for Sierra Pacific Power Company which may be required during the winter of 1949-1950.

Having heard nothing further from you since I wrote you last on August 6, I am wondering what may have transpired in the meantime affecting this problem, and I would be delighted to have a line from you to keep us advised.

Very truly yours,

JAMES F. POLLARD
Manager Commercial Department

JFP:H
NRS

EXCERPTS FROM EXHIBIT 12

[1650]

BEFORE THE

PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

JUSTUS F. CRAEMER, Commissioner, Presiding.

In the Matter of the Application of PACIFIC GAS AND ELECTRIC COMPANY and SIERRA PACIFIC POWER COMPANY for an order of the Public Utilities Commission of the State of California granting and conferring upon applicants all necessary permission and authority to carry out the terms and conditions of a written contract by and between said parties, dated March 4, 1948.	Application No. 29,221.

APPEARANCES:

ROBERT H. GERDES and RALPH W. DU VAL, 245 Market St., San Francisco, Cal., for Applicant Pacific Gas and Electric Company.

T. W. DAHLQUIST and C. L. BARNARD, San Francisco, Cal., and W. J. FORMAN of THATCHER, WOODBURN & FORMAN, of Reno, Nevada, for Applicant Sierra Pacific Power Company.

J. G. ALLARD and ALFRED M. SMITH, members of the Public Service Commission of Nevada, Carson City, Nevada.

ALFRED MERRITT SMITH, appearing as representative of the Colorado River Commission of Nevada, Carson City, Nev.

C. LESTER ZAHNISER, for the City of Reno, Nevada, City of Sparks, Nevada, Nevada Retail Merchants Association of Reno, Nevada, City of Fallon, the Chamber of Commerce of Virginia City, Nevada, Chamber of Commerce of Reno, Nevada, Douglas County Chamber of Commerce and Carson City Chamber of Commerce, Address: Sparks, Nevada.

[1651]

[SAN FRANCISCO, CALIF., APRIL 15, 1948: 2 o'clock P. M.]

* * * * *

[1652]

JAMES F. POLLARD, a witness called on behalf of Applicant Pacific Gas and Electric Company, being first duly sworn, testified as follows:

Direct Examination

Mr. Du Val: Mr. Pollard, you are an employee of the Pacific Gas and Electric Company, are you not?

A. Yes, I am.

Q. What position do you occupy? A. Manager of the Commercial Department.

* * * * *

[1661]

Q. Now, what were some of the reasons for us entering into the agreement of March 4, 1948? A. Of course, the

primary reason was that the load of the Sierra Pacific Power Company has grown to the point where it is very little less than the total combined capacity of the two 60 k.v. lines and the anticipated future growth is—I mean anticipation as to future growth is that it will continue to increase rapidly and by October, 1949, without an additional transmission line, it will not be possible to supply the entire load, and the purpose of entering into it was to give better service to the Sierra Pacific Company and to retain its business.

Q. Paragraph 11 of the agreement of March 4, 1948, which is now before this Commission, provides that the agreement shall remain in force and effect until December 31, 1964, or 15 years after the date when the first 110 k.v. line goes into service, whichever is later, and unless extended as further provided in the contract. Now, what was the reason or reasons for making the contract effective for a 15-year term after the date that the new proposed transmission line is placed into service? A. Well, of course, that was—on our part was in order to guarantee that we would have business for a long enough period of time to warrant us in making the investment in the cost of the new line and amortizing it. And, furthermore, followed the same pattern as previous contracts we have had in each of which instances a substantial investment was made for service of this customer. And, similarly, 15-year contracts were taken at each of those times for that reason.

* * * * *

[1663]

Mr. Du Val: No further testimony to offer.

Commissioner Craemer: Any questions?

Cross-Examination.

* * * * *

[1665]

Mr. Smith: Mr. Pollard, will the need of power in Northwestern Nevada, in the fields—outside of the fields served by the Sierra Pacific, wouldn't that contract have the effect of preventing the construction of lines into those areas? In other words, wouldn't it be a virtual monopoly of power distribution in Northwestern Nevada, making it difficult if not impossible for economic construction of lines to serve other areas, other towns?

A. I do not think I am in a position to answer that question because I am not familiar, particularly, with conditions in Nevada. We were asked by the Sierra Pacific Power Company under what conditions we will serve them with additional power and these are the conditions that we have agreed on with them, but what the economic situation is or the availability of sources or prospective loads in Nevada I could not testify to that.

Q. We are—the reason of my question is we are very much concerned with that part of the situation and we are not thoroughly familiar with the effect it would have ourselves and that is one of the reasons that we would like to have this contract further examined and further explored by engineers and agencies and municipalities in Nevada to see what effect it might have upon them in the comparatively near future obtaining power that they need at the lowest possible price.

[1666]

Now, do you think that the execution of this contract would not have the effect of preventing the entry of power that might be available to the State of Nevada at a low rate from coming into Nevada?

A. I would not have any opinion on that, I don't know.

Q. That is one of the questions that we are concerned with. * * *

• • • • •

[1671]

Commissioner Craemer: Any other questions of Mr. Pollard?

Mr. Wehe: I have a question.

Commissioner Craemer: Mr. Wehe.

Mr. Wehe: Mr. Pollard, I think you stated that the rate included in the proposed contract was the equivalent of your present P-31, exclusive of the standby charge?

A. That is true, yes.

Q. Mr. Pollard, can you state if the proposed contract were authorized by the Commission that your Company would be willing to accept the conditions imposed in the Commission's order I think that you quote as 38.305 in Case 4788 that authorized the establishment of schedule P-31? A. What conditions do you refer to, Mr. Wehe? The conditions Mr. Du Val pointed out, I believe, and I agreed with him that this is the P-31 contract—the rate is P-31 but the conditions under which we propose to render this service are as stated in the contract itself.

Q. Specifically what I had in mind was that portion of the opinion which raised the question as to whether P-31 was fully compensatory, that it carried its full cost of service and if it did not that the burden would not become and lie on the other P. G. & E. customers? A. I think the Company would agree to that condition, yes, under those conditions.

• • • • •

[1672]

Commissioner Craemer: Any other questions?

Mr. Zahniser: Yes, Mr. Commissioner.

Q. I take it from this contract, Mr. Pollard, that the P. G. & E. will be in position to complete its first 110 k.v. line by October 1, 1949? A. That is the date that we are shooting for and, barring unforeseen difficulties, I think we can perform.

Q. At that time will P. G. & E. be able to supply all of the Company's requirements of the Sierra Pacific Power Company, plus their own consumer requirements in California from their own sources of energy? A. I believe they will.

Q. Without purchase from any other outside source? A. Well, now, we purchase from other outside sources at all times. We have purchase contracts with other supply companies and we consider those part of our resources.

Q. Well, now, how much of the energy you anticipate selling under this future contract here to the Sierra Pacific —will that be Shasta Dam power? A. Well, it is,—of course, you can not ear-mark power, but we anticipate being able to continue to use Shasta Dam power in the future as we are at the present time. If we do it will be part of the resources of the Company and some of it, undoubtedly, would find its way into this contract.

Q. Then it is quite likely that some portion of the power sent over the hills through these two new lines will be Shasta power? A. Well, Shasta power will, in my opinion, be part of our whole pool, and I could not say what kilowatt hour goes where, nobody can say that.

Q. You would not be able to state, then, what percentage of this expected 40,000 k.w. load would be Shasta power? A. No, nobody could say that.

Mr. Zahniser: That is all.

Commissioner Craemer: Any other questions? (No response.) That is all, thank you, Mr. Pollard.

* * * * *

[1673]

FRANK A. TRACY, a witness called on behalf of Applicant Sierra Pacific Power Company, being first duly sworn, testified as follows:

Direct Examination

Mr. Dahlquist: What is your full name?

A. Frank A. Tracy.

Q. What is your position with the Sierra Pacific Power Company? A. President.

Q. How long have you been president, Mr. Tracy? A. I have been president the last 6 years and was manager before that.

Q. You were manager before that? A. I have been either manager or president since the first of 1940.

Q. And you have lived all that time in Reno? A. I have.

Q. How long have you and the engineers and management of Sierra Pacific Power Company been studying this question of power supply?

Commissioner Craemer: May I interrupt just a minute. Can you hear back there?

Voices: No.

Commissioner Craemer: A little bit louder, Mr. Tracy.

Mr. Dahlquist: Have you, as manager—engineers and management of Sierra Pacific been mak-

ing a study of sources of available supply of your Company?

[1674]

A. We have, for the last—for this particular situation for this particular situation for the last year and a half, about.

Q. What sources did you consider, Mr. Tracy? A. We considered all sources. The possibility of connecting with the Idaho Power Company up north, possibility of connecting with the California Electric Power Company from the south, with the Reclamation Bureau, with the P. G. & E. Company and the possibility of our own power—construction of power plants.

Q. You have then, made contacts with the Reclamation Bureau and have thoroughly considered the possibility of getting power from them? A. We have.

Q. Has anybody in the Reclamation Bureau been able to assure you that they had appropriations, funds that they could construct a line or in the reasonably near future guarantee assured source of supply to you? A. Not for a period that assured a supply at the time that we wanted—that we want it, no, they have not.

Q. Have you been informed of any appropriations that have been made by Congress that would permit the Reclamation Bureau to build a line over the hill? A. I am not familiar with them—with any.

Q. Now, what is your problem in the reasonable future as to your power you have available for your system in relation to the demand upon it now? A. When we began studying the power situation that is facing us in the near future, as I said, about a year and a half ago, it is in line with regular future power studies. In other words,

we can not wait until we reach our maximum capacity output—reach maximum capacity before we study ahead That was why we started a year and a half ago studying for the future which we figure in 1949 would be reaching practically the capacity of our existing sources. That was the basis of our studies.

Q. According to your present studies and knowledge would you have sufficient capacity to carry you through the winter of 1949? A. There is a very serious question that we would have enough to carry us through the winter of 1949 without some other arrangement.

Q. Your peak load comes in the winter? A. That is right, in the early winter.

[1675]

Q. I think it was testified by Mr. Pollard that on a capacity of 30,000 K.W. you reached a peak of 29,520 in December of last year? A. Yes.

Q. That is your peak now? A. That is last year's peak, that is right.

Q. Now, as a result of your study, canvassing all of the possible available sources of supply, the management came to the—had the conviction and informed judgment that the new contract with the Pacific Gas and Electric Company was the most dependable and best contract available? A. For this period, for this time, that is true.

Q. Then, in your opinion, as a result of your studies, Mr. Tracy, you believe that this contract, proposed 1948 contract with the Pacific Gas and Electric Company is the best and most dependable contract you could obtain? A. I do.

Commissioner Craemer: A little louder, Mr. Dahl-

quist. I can see those people can not hear you. Let the Reporter read the question. (Record read.)

Mr. Dahlquist: What is your view of the necessity for a 15-year contract, Mr. Tracy?

A. When load conditions are such that you have to have additional capacity it might be that that additional capacity could be arranged to carry you over for a short period—be sufficient to carry you over for a short period, but in case where you have to go to a relatively large investment it is only fair and business—proper business that the Company you are negotiating with gets a proper return on the investment for that period. That is the basis upon which we would operate ourselves, we would not expect anybody to go to a large investment which is necessary in order to give the Company capacity they need for any shorter period than that.

Q. You are proposing, if this contract is approved, to expend approximately $750,000 for new facilities yourselves? A. That is right.

Q. That $750,000, if I understand, includes the so-called California substation that Mr. Pollard testified about? A. It does.

[1676]

Q. In other words, $750,000 to be expended by you is not only the line, the substation and everything that you require to carry through this proposed contract? A. Receiving the power.

Q. In turn Pacific Gas and Electric Company, while it will not fully match your investment contemplates an additional investment of approximately $538,000? A. That is what I have been given to understand, yes, sir.

Q. And in your opinion, with such a heavy investment in addition to the large investment they already have in lines, it is fair in the trade and industry to have a sufficiently long term contract to enable them to recoup at least a part of that investment? A. That is true.

Q. Well, doesn't the duration of the contract affect your investment as well as that of Pacific Gas and Electric Company? You would not spend $750,000 for a short period operation? A. No, that is true. Some of—some of that—there may be some of that $750,000 that will be salvaged and used in another—for other means of receiving power, I mean from other sources, but the majority of it would probably be and is being spent for this particular source of power.

Q. As the responsible operating head of Sierra Pacific Power Company, charged with the duty of seeing that these communities are properly served, in your opinion can Sierra Pacific Power Company delay much longer in formulating its definitive plans as to securing dependable additional power? A. I think we have delayed just as long as we can with the growth we are having. In other words, if we delay much longer we are going to be obliged to refuse power to some consumers, I should say. It is 1949, as I say, is just about the point where we break with our present facilities.

Mr. Dahlquist: That is all I want from this witness. I expect to call some engineers, Mr. Commissioner.

Commissioner Craemer: Go ahead, Mr. Wehe.

Cross-Examination

Mr. Wehe: Mr. Tracy, if an alternate source of power were to come over a single transmission line

would you consider that of sufficient stability to warrant you entering into a contract with the sole source of power?

[1677]

A. That was considered, not only—that is, that was considered when we were considering where the additional power was to come from, and while the main—one of the main factors, as I said, was the fact that P. G. & E. seemed to be the source that it should come from, everything considered, nevertheless, we did think along that line of receiving power over a single line from a single source as being very undependable power and we would have had, under that arrangement, for the benefit of the customers, to assure anywheres near reasonable service to get a standby source, which, of course, would increase the cost of power considerably.

Q. Mr. Tracy, does your Company hold itself out to supply all utility services in the State of Nevada? A. You mean other than electric?

Q. No, in the loads that may develop in the State of Nevada within your service area? A. That is our business and we take it as a requirement that we must serve the loads in our territory.

Q. That is, if new loads develop— A. That is true.

Q. —you will attempt to serve those loads? A. That is right.

Q. You consider that your obligation? A. That is right.

Mr. Wehe: That is all.

Commissioner Craemer: Any other questions?

Mr. Zahniser: Yes, Mr. Commissioner.

Q. Mr. Tracy, under this new contract isn't it a fact that the Sierra is confining itself to a single source of power? A. No.

Q. Outside, I mean, of your own generating plants? A. No. We have two lines and will have 3; we are backed by some 70 odd power plants, half of the capacity of the —approximately half of the capacity of which are steam; we are backed by the whole P. G. & E. System.

Q. Well, but one single concern sells you all that power, other than what you develop yourself? A. Well, it is not the concern that counts as much as the power generating capacity that that concern has. In other words, they have 75 sources rather than one.

[1678]

Q. In other words, you feel that we in Northern Nevada would be better off with the P. G. & E. contract and 75 diversified plants and the fact that they have steam standby? A. There is very few other sources we could get that had a steam standby.

Q. Yes. Now, I note on this schedule which has been submitted in evidence as Exhibit 1 that under your present contract the average cost is 7.36 mills per k.w. That is the cost at the present that you pay P. G. & E.? A. That is correct.

Q. And under the new contract your cost will be 6.634 mills? A. That is what the statement shows, yes.

Q. Now, will that reduction in cost to you be reflected in any consumer reductions in Nevada? A. All the savings in cost of the Company ultimately reflect in the savings to the consumers. In other words, when the Company is regulated by a Commission and when it earns a high—too high a rate of return they are requested to reduce

their rates to the consumer. It is regulated by the Commission.

Q. Now, as I understand your present setup in Nevada you produce about 10,000 k.w. from your own plants on the Truckee River? A. Yes.

Q. So, under this new setup you will have an additional 40,000 available from P. G. & E.? A. Of line capacity, yes.

Q. We will have a total capacity in Northern Nevada of 40 from P. G. & E. and 10 from your plants, making 50 in all? A. No, the other two lines are 30 more; 16, 40, 30 is 70 and 10 are 80. It is 80,000.

Q. You will have a total of 80,000 available for your distribution system there? A. That is line capacity, yes, line capacity.

Q. That capacity will be reached, according to your testimony, in October of 1949? A. No, because that was included in the 40,000 of the new line which won't be in until that time.

Q. Now, in the study of other possible sources, other than the P. G. & E., Mr. Tracy, have you contacted the

[1679]

Bureau of Reclamation? // A. We have talked with them, yes, sir; they contacted us, and we contacted them.

Q. Did they tell you they would not build you a line over the hill? A. No, they did not say they would not. We asked them how soon they could and they said it depends upon appropriations and if they did succeed in getting the appropriations they thought they might it would be 1951 before they could get a line over the hill; that would leave a period of 1949 to 1951 where we would be definitely short of power.

Q. Was there any discussion by your Company with

the Bureau as to rate cost? A. They presented to us their standard rate schedule which included delivery at any point, the same cost at any point, that is just the same cost at Shasta station as it would in Utah or Nevada or any other place. That was the standard rate schedule, that is the one they presented to us.

Q. How would that average rate compare with the P. G. & E. rate? A. I would rather an engineer would answer that, Mr. Zahniser, because I haven't—

Mr. Dahlquist: I am going to have another witness.

Mr. Zahniser: That is all.

Commissioner Craemer: Any other questions?

Mr. Allard: Mr. Tracy, doesn't your present contract prevent you fror purchasing power from the Bureau of Reclamation or from other sources?

A. The present or proposed?

Q. The present contract? A. Present contract?

Q. For the next five years? A. I believe that it does, yes.

Q. Then you could not enter into any contract with the Bureau of Reclamation for any power at the present time? A. Not according to the terms of the contract as I understand it.

Mr. Dahlquist: Mr. Tracy, may I refresh your recollection and call your attention to the provision in the existing contract which provides that when you buy away from Pacific Gas and Electric Company you can do so, but you pay liquidated damages of $75,000 a year?

[1680]

A. That is on the basis that you default on the contract and buy from another source.

Q. If you did buy from another source? A. Yes.

Q. But there is no absolute prohibition of buying from another source, but there is a liquidated damage clause.

Mr. Allard: But, Mr. Tracy, isn't it a fact that it makes it almost prohibitive for you to try to purchase from some other source, due to that heavy penalty?

A. Not only that, Mr. Allard, but when you—any time that you purchase power from two sources you must pay for standby from either source or else you do not have a semblance of firm power or continued service to your customers because you can not expect one company to immediately pickup the load unless you are paying for that standby service. In other words, they will not hold it in readiness for you to use, so that your combined cost of purchasing from two sources with standby that is necessary in order for one to pickup the load of the other in case the other goes out is prohibitive in cost.

Q. Well, Mr. Tracy, then, what was the reason for your contacting the Bureau of Reclamation at this time to try to purchase power from them? A. This was much before we had any agreement—arrived at any agreement with the P. G. & E. This was when we were studying where we were going to buy the power, this was not recent. We had negotiations with the Reclamation Bureau at least a year ago.

Q. Then, it would be with the prospect of buying power from them at the expiration of the present contract? A. That is correct.

Q. Which would be 1953? A. That is correct—or I will change that a bit. That would be the normal reason, but actually we had to allow for power at the end of 1949 so

we could not wait for the expiration of the contract, we had to get it before the end of the present contract, even if we had to pay a penalty by buying from another source.

Commissioner Craemer: Any other questions?

Mr. Zahniser: Yes, I have another question, if you please, Mr. Commissioner.

[1681]

Q. Mr. Tracy, under the present contract is it true that P. G. & E. has to serve Sierra all of their power requirements that the Sierra can handle over the existing facilities? A. Until 1953 the P. G. & E. guarantees to sell and we guarantee to receive, as I recall it; I haven't the contract before me.

Mr. Dahlquist: May I pass up the contract? I was in error myself, Mr. Commissioner. There is no penalty clause. I think that it is best that we go to the basic document and see what it is.

Mr. Zahniser: I suggest, Mr. Commissioner, that if the witness is going to testify from the document it should be placed in evidence.

Mr. Du Val: It is already in evidence.

The Witness: It is in evidence.

Mr. Zahniser: Pardon me.

The Witness: This document, which is in evidence with the Commission, which is the agreement between the P. G. & E. Company and the Sierra Pacific Power Company which is now in force states that all electric energy—"Pacific hereby promises to sell and deliver to Sierra and the latter hereby promises to purchase and receive from Pacific all of the electric energy that Sierra shall, during the

term hereof, desire to purchase from Pacific for use in the conduct of its, Sierra's utility electric business." Then the clause to which we just referred to on the $75,000 states: "Sierra agrees, in the event it contracts, during the term hereof, to purchase power from other than Pacific, excepting, however, minor standby and minor exchange agreements to pay Pacific hereunder not less than $75,000 per year in addition to the standby charge for each year during which it purchases power from parties other than the Pacific."

Q. Well, then, I take it that that clause means that the P. G. & E. would be bound under the contract to furnish all of the power that you might need? A. All that we wish, all that we ask for.

Q. And your existing facilities now give you capacity up to 30,000? A. That is right, that is the stated capacity of the lines at the present time.

Q. You have those two 60 k.v. lines? A. That is right.

[1682]

Q. In your contract with the Bureau of Reclamation, was that done by you personally? A. The representatives of the Bureau were in my office with my own engineers.

Q. Is there any correspondence with your Company with them on this subject? A. I believe several letters, yes.

Q. Do you have those letters? A. I haven't here.

Q. Would it be possible to submit copies of those letters to the Commission as evidence in this case? A. I think it would be possible. As I recall it the first letter, I believe, if I am not mistaken did present and confirm more or less the talk we had; the other letters, however,

were more or less requesting further discussion, which we never did have because the first results showed that we just could not tie ourselves up in that—with that type of contract under the present circumstances.

Q. Mr. Tracy, I believe you testified awhile ago on direct examination that it was your opinion that this P. G. & E. contract was the best possible under all the circumstances of investigation that your Company had conducted? A. That is true for this particular situation. It may be that later on when other sources have a firm contract to offer and can definitely offer it and guarantee that there might be another source that might be better than this one, but at the present time there is nothing in my mind, no other source in my mind and in investigation that is better than this one.

Q. This contract effectively ties Sierra's hands for 15 years, will it not? A. In what way do you mean?

Q. Well, because of the fact that you are prohibited from developing any further power facilities of your own? A. No, I do not think that is true. The contract is worded in that way, if the parties have a modification that is justified I think the parties can get together on it. In other words, only the—the principal thing that the selling party would have—I might be corrected on this if I am wrong from the P. G. & E. Company—would be idle investment. In other words, if we had a development that we found feasible and it came in at a time when any

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investment was made idle by the // P. G. & E., in other words, at a time when they might have to put in additional investment even to serve it, it would not penalize P. G. & E. if we went ahead on it and we could make arrangements with them to do so.

Mr. Zahniser: No questions.

Commissioner Craemer: Any further questions?

Mr. Wehe: Mr. Tracy, could you develop your own power, either through steam electric plants or hydro at rates more advantageous than under this contract?

A. At present costs, no.

Q. And about what is the earliest period that such new sources of power could be—would be made available if you undertook such project? A. The nearest one we have is the West Walker Project, which has a very complicated water situation which might take at least 3 years before you could get—3 or more years before you could clear up the water problems, plus getting materials and developing the project. It might be even more than that, but a minimum of 3 years.

Q. Such an undertaking would require a considerable capital investment, Mr. Tracy? A. It would, with present prices exceedingly high.

Mr. Wehe: That is all.

Commissioner Craemer: Any other questions? (No response.) Thank you, Mr. Tracy.

Mr. Dahlquist: I would like to call Mr. Devore.

GEORGE G. DEVORE, a witness called on behalf of Applicant Sierra Pacific Power Company, being first duly sworn, testified as follows:

Direct Examination

Mr. Dahlquist: Mr. Devore, what is your position with the Sierra Pacific Power Company?

A. Water resources engineer.

Q. Tell us briefly what is your experience, education

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and experience as an engineer has been? // A. I graduated from the University of California in 1909 from the Civil Engineering College. I had some experience with the Municipal City of Oakland, with the United States Irrigation investigation, and during the past 38 years I have been employed by Sierra Pacific Power Company and its predecessor. This experience has been quite varied, and has majored more on water problems and power resources.

Q. You have been with this Company 38 years? A. I have.

Q. Were you also in its—did you participate in the studies as to other possible sources of supply for your Company? A. I did.

Q. Was there ever any consideration given to possible supply from Boulder and what the cost of the line would be from there? A. Yes, we investigated the possibility in a preliminary way of getting power from Boulder, directly from the California Electric Power Company, from Idaho, from the steam plant, from the Walker River development, from the Prosser development on the Truckee River, from Shasta and from the Pacific Gas and Electric Company.

Q. You have made some studies of the possible Shasta source yourself, have you Mr. Devore? A. We made a preliminary study. Then afterwards I analyzed the proposed contracts submitted by the Reclamation Bureau to the Colorado River Commission.

Q. Did you make any study of costs on the prices of the proposal as contrasted in the Pacific Gas and Electric

Company contract that is under discussion here? A. I did.

Q. What were the results of the study? A. I think in qualifying the answer I would like to make some qualifications and basis before giving the answer.

The Reclamation Bureau submitted a contract under date of March 21, 1947 to the Colorado River Commission of Nevada. This schedule of rates provides a demand charge and energy charge and a minimum bill. Now, in looking toward a future supply of power we must not only look forward for the next 2 or 3 years, but for 15 or possibly a 20 year period. Power acquisition is not like going to the grocery store, where you can make up your mind what you want for the next day; it must be

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on a long term basis and the Colorado // River Commission, which I think looked at it in the proper light, requested an allocation of 90,000 kilowatts from the Colorado Commission.

Well, now, as an operating situation we know that you can not reserve a block of power in the Reclamation Bureau or P. G. & E. or anything else without making proper compensation. It figures out under this proposed contract with the Bureau that the minimum monthly bill under this schedule as submitted would be $90,000 a month or $1,080,000 a year. There has been some comments about that minimum charge and where they would say that they could pay for it, that matter was taken up with Mr. McPhail, he said that is a possibility, then the question was asked him as to if the power would be available and he said it would be, you could secure it if it was available, but no guarantee of its availability would be made. That is as near as I can recall the conversation.

Now, in order to be sure and protect your investment

you need this 90,000 guarantee—90,000 kilowatts guaranteed, which does create this through your minimum of $90,000 per month. On that basis, when this estimate was started out in the past 12 months of actual consumption, and that was that—take in the period from October, 1946 until October, 1947, we projected forward our demand from that date at the rate of 10 per cent per year for the following five years, then an increase of 5 per cent per year for the following 10 years—off the record, did I state 5 years? (Record read.)

The Witness: That is correct. This would indicate that our maximum demand in 1962 would reach approximately a hundred thousand kilowatts of which, if we made further development of our own, would require the purchase of the 90,000 kilowatts proposed by the Colorado River Commission.

Now, on that basis we found that during the past 12 months that was from October, 1947 on, that the Reclamation Bureau cost was 14.5 mills. We then took 5 years—a period of 5 years elapsing and secured the cost based—secured the cost to 1952 based upon this estimated increase in system load and we found that the $90,000 minimum there still affected the purchase in 1952 to a small extent at which time the cost from the Bureau was 5.76 mills. Then we computed the cost for 1962 and we found that the Reclamation Bureau cost was 4.74 mills.

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Now, proceeding with the Pacific Gas and Electric Company contract we found that first year of cost, that is, going back for the previous 12 months

actual requirements was 7.19, that the cost estimated in 1952 would be 6.12 mills and that the cost in 1962 would be 5.59.

Now, may I proceed a little further with this?

Mr. Dahlquist: Yes.

A. We tried to see what the average effect of this rate between the two companies would amount to, what the difference would be, and computing it as closely as we could we found that with the cost of 3,881,000,000 kilowatt hours, the estimated amount of the requirements during the 15-year period, that the Reclamation Bureau cost was .555 mills less than the P. G. & E. cost.

Now, this cost is only one of the items in arriving at the conclusion. I might state that in rough figures that the difference of this cost to the average domestic consumer on our system, which a very heavy use, amounting to some 2800 kilowatt hours per year, would amount to about 10 cents per month, if the full benefit of this reduction in power could be passed on to the consumer and no losses in transportation for delivery were considered.

Of course, in reaching a conclusion to make a recommendation as to the source of power that was most advantageous not only to the Power Company, but to the consumers of the Power Company, both in California and Nevada, you have to take into consideration more than just actual cost of power. We found from our load curves, as has been testified to by Mr. Tracy, that we would reach the limit of our carrying capacity on interconnecting lines in the fall of 1949 and that was one of the bases placed in the Pacific Gas and Electric Company contract. We could not find another source of power that would become available at that date except from the Pacific Gas and Electric Company, and that meant that if we should take

power from the Bureau and that if our load continued to increase at the present rate we would not be able to take on additional loads during 1950 or 1951 until the Bureau line was placed into operation.

We could not get any assurance, and I think that is obvious from any Bureau engineer, that they would make the line available in 1951; they always had to fortify themselves with a statement that they could do it if the

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money was appropriated by Congress; if the money // was appropriated in 1948 they could get it in '51 or 1952; if it was appropriated in '51 why then the power was available in '53 or '54.

Then, the question, other question that entered into the consideration was having to accept service over a single line; if we accepted service over a single line we had to do one of two things, we either had to purchase standby from the Pacific Gas and Electric Company, and that might amount to a very large sum of money under their schedule of rates, or we had to take a chance of going into a blackout in case of a failure on the Reclamation Bureau line, and a line that extends from Shasta to Sacramento and Shasta to Donner Summit, another hundred or 125 miles has many possibilities of failure.

Mr. Dahlquist: What is the total from Shasta to Donner?

A: I do not know the answer to that, I haven't it available at this time.

That condition would exist, between—for the period between the construction of the first line and the second line. After the construction of the second line in '54 or

'56, referring back to our load bogey, here we find that if one of the lines went out, why, we would have to dump some of our load, we would not be able to carry all of our load then by one Bureau line and our own plants; the load would exceed that amount and there would have to be dumping of load, which meant if you wanted standby you would have to have 3 lines after a certain period in there. Then also the question was considered was accepting service from one power plant or from two plants served by one reservoir—we know the dependability of power is quite a question, as to how much prime power Shasta has and under these contracts we all realize that Shasta must first make up the power requirements of the Government, that the Colorado River Commission or municipalities come in for second choice. It is not impossible at all that at some time in the near future that instead of southern part of California being in drouth, the northern part might have a drouth; that—in that case the Bureau contract provides that power can be cut back on short notice without any recourse except to some adjustment in the demand charges, and there you go in another brownout.

After taking all of these points into consideration I recommended to Mr. Tracy that, in my opinion, the Pacific

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Gas and Electric Com // pany was the best source of supply at the present time, that the Reclamation Bureau contract was premature.

Q. Mr. Devore, do I understand correctly that over the 15-year contemplated period the average difference in cost is about half of one mill between the Reclamation— A. That is correct, based upon the bogey estimate as we worked it out.

Q. But that difference of one half mill—approximately one-half mill does not take into account any standby charges at all, does it? A. That is correct. With the P. G. & E. Company contract we have a certainty in there for standby over our Company owned plants; with the Bureau there is no provision made for standby after our plants. It did not seem worth while trying to talk that over, trying to see if there would be an additional charge for standby because the balance of the contract did not seem to justify its acceptance.

Q. And the other factors that Shasta Dam was a single source, the chances outages which could have—in dry years the source itself could be interrupted and then the hazard of the long transmission line on which you could have outages? A. That is correct and, as is known, Shasta Power Plant has no secure standby to withstand drouth conditions.

Q. One or two other questions, Mr. Devore. Your Company has considered for years, has it not, developing other possible sources, such as West Walker or enlarging your Truckee plants? A. We have, yes.

Q. You—in your opinion, is any source of additional power, either on the Truckee or West Walker that you could develop under today's costs that would result in manufactured energy on your part that would be cheaper than this Pacific Gas and Electric Company contract? A. No, I think under present day costs of material that the cost of power that we would develop on the Walker River or that we might develop in the Prosser development on Truckee would be in excess of the Pacific Gas and Electric Company.

Now, if somebody came in and paid half of these costs, or something, that would modify the answer.

Q. What do you mean by that? A. Well, if Santa Claus—

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Q. As far as your knowledge goes the actual cost of production of the project would raise the cost? A. Above P. G. & E. power.

Mr. Dahlquist: That is all.

Commissioner Craemer: Any questions of Mr. Devore?

Cross Examination

Mr. Du Val: Mr. Devore, in making this comparison of cost between the delivery of power by the Bureau—

Commissioner Craemer: Mr. Du Val, talk a little louder; I am sure those people can not hear you.

Mr. Du Val: —and estimating the cost under the P. G. & E. contract, I take it you used the same delivery point, namely, the Summit?

A. Yes.

Q. Now, I think you said the Bureau would have to build a line about 125 miles from Shasta Dam to the Summit if it should undertake to supply the Sierra Company? A. From Sacramento substation.

Q. 125 miles from Sacramento? A. I may be in error in that, it may be a hundred; I have not computed it very closely.

Q. Now, do you know what distance the Spaulding power house of the Pacific Gas and Electric Company is from the Summit, approximately? A. About 9 miles.

Q. How far is the Drum power house from the Summit? A. About 19 miles.

Q. Now, are you familiar with weather conditions that obtain in the area of the Summit during the wintertime? A. I am.

Q. Considering the two sources of supply, the P. G. & E. and the Bureau source, and assuming a single transmission line from Sacramento to the Summit, which would you say was more reliable? A. Will you read the question please?

(Record read.) A. Based on 3 lines connecting with the P. G. & E. system I consider that the P. G. & E. system is more reliable.

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Q. By 1962, assuming your load growth as anticipated there would be 4 lines of Pacific Gas and Electric Company, would there not, to the Summit to supply the Sierra? A. Yes, I think 4.

Q. If you assumed that the Bureau should build 2 lines from Sacramento to the Summit and contrast that with the 4 lines that the Pacific Gas and Electric Company would have in by 1962, what then, would be your opinion respecting the reliability from the two sources? A. I think you would have more reliable power from the Pacific Gas and Electric Company.

Mr. Du Val: No further questions.

Commissioner Craemer: So that you get the record straight I think, Mr. Devore, you should let us know, or rather state where the 260 k.v. lines come from now?

A. Possibly that should have been submitted by Mr. Pollard. To the best of my knowledge the source of one 60 k.v. line is Drum power house, goes to Donner Summit and terminates at Washoe substation; the second line, as I understand it, started from Spaulding, there already being a 60 k.v. line between Drum and Spaulding and from Spaulding extended to Donner substation and thence to Washoe power plant.

Q. Where does the 110 k.v. line go? A. The proposed line—110 k.v. line would start from Drum and would extend from there to Donner Summit, then from Donner Summit to a point near the California-Nevada state line in the vicinity of Dog Valley Creek.

Mr. Du Val: Mr. Commissioner, I would like to refer to the fact that Mr. Dahlquist has had considered in this proceeding by reference the registration statement of the Sierra Pacific Power Company and that at page 14 of that document there is shown a drawing or map showing the Sierra Pacific Power Company electric system and on that drawing in dotted lines is shown the approximate route of the two existing transmission lines of the Pacific between Spaulding power house and the Summit and Drum power and the Summit.

Commissioner Craemer: That map prompted my questions. I thought it would be well to have that

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in the record because // talking about a 60 k.v. line and 110 k.v. line and certain exhibits not knowing which goes to where, I thought it was rather important to have that in the record.

Mr. Du Val: Thank you.

The Witness: Mr. Commissioner, with your permission I would like to give some estimates here of some of these costs so as to clear up the variation of statements that have been made by different parties as to the cost of Shasta Power.

Commissioner Craemer: You may proceed.

The Witness: In computing the cost of power from Shasta we have taken sufficient power to supplement power that was generated in our own system; now, that power, of course, is not the Sierra Pacific Power Company's system load—load factor, but is the load factor after deducting the generation of the Company's power plants, which run at approximately a hundred per cent load factor, and that is one reason that the cost is higher than has been spoken of heretofore.

I have computed here roughly this afternoon that power purchased at the Shasta Power Plant on 60 per cent load factor would come to about 5 mills; on a 65 per cent load factor about 4.6 mills, which I think is the figure that I referred to here this afternoon. We would not get a market availability for power at those load factors unless we shut down our own power plants, and then there is only one or two months in the year that we would approach 60 per cent load factor, so that the assumption of some one who spoke of putting this power cost of 4.6 mills and in that neighborhood has had an erroneous assumption as to load factors.

Commissioner Craemer: Isn't it true under your proposed contract with P. G. & E. that as your load factor goes up your rate still decreases?

A. That is correct.

Q. Even beyond these figures that are given here? A. That is correct. We find that the load factor both at Shasta and P. G. & E. both drop as the load increases and the load factor rises.

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Q. That is automatic? // A. Automatic. But at no time, unless we had an entirely different type of load, would we have a 65 per cent load factor.

Mr. Du Val: Just one question, Mr. Devore. In making your comparison between the cost of energy from the Pacific Gas and Electric Company under the 1948 contract which you said, in 1962 would be 5.59 mills, as I recall it, then you said that under the Bureau contract or offer it might be—probably would be half a mill difference. Now, did you provide any standby—did you include any expense for standby in calculating the Bureau price?

A. No.

Q. For the purpose of making comparison? A. No, I did not. If I remember correctly I stated that I did not provide any standby.

Q. Yes, I think you did. A. Nor do I provide for any overhead costs or costs of connecting transmission lines with the Bureau lines.

Q. Well, assuming in 1962 that the Bureau was supplying power at two transmission lines to the Summit and your load was as you now estimate it might be in 1962, as an engineer would you recommend to the Sierra Company that it undertake service of that kind without standby? A. Will you read the question.

(Record read.)

A. Not if I could get better service and more standby.

Q. And I take it from your previous testimony that it was your conclusion that you could obtain better service from Pacific Gas and Electric Company than that proposed by the Bureau? A. That is correct.

Commissioner Craemer: Any other questions?

Mr. Zahniser: Yes, Mr. Commissioner.

Q. Mr. Devore, I gather from your testimony that there would be 90,000 k.w. available from the Bureau of Reclamation if it is the desire to enter into this contract, is that true? A. I can not answer that. I tried to cover that point, Mr. Zahniser. We have no assurance in this proposed contract submitted by the Bureau that there will

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be 90,000 kilowatts available if they have a // drouth there and if they do not release the water in January of some year when there is a shortage of water, then they will have—will not have 90,000 kilowatts of prime power.

Q. In other words, they could not make a firm contract with you on that point? A. I think the contract has to speak for itself, that is, the proposal they put in this contract here that they could reduce the amount of power if there is a shortage of water, and as a matter of fact, I do not see how they could do anything else; if nature does not the water, why you do not get the power and if you do not get the power you can not make delivery.

Mr. Zahniser: Is this contract in evidence, Mr. Commissioner?

Commissioner Craemer: No, sir.

Mr. Zahniser: Are you going to put that in, Mr. Dahlquist?

Mr. Dahlquist: There is no contract to which we are a party. This is merely hearsay; according to my understanding there is no contract other than a lot of talk, but nothing has ever been signed up; there has been no appropriation by Congress. It is all in an inchoate stage, if my understanding is correct.

Mr. Zahniser: Then, Mr. Devore, this is a proposal that is being negotiated. You say there is no contract in this proposal?

A. That—there is no contract. This form of proposal was submitted to the Colorado River Commission by the Reclamation Bureau as long as October 21, 1947. I reported to Mr. Smith last fall that I could not recommend that to the Sierra Pacific Power Company and I gave him reasons why.

Q. In any event, as I understand your testimony, a line would have to be built for that energy and it would take some time through 1951 to bring it into the Reno-Sparks area? A. As I recall that was the estimate of the Bureau engineers, and I think that is a reasonable assumption.

Commissioner Craemer: If the appropriation were made this year?

A. That is based on an appropriation being made available in 1948.

Mr. Zahniser: And the present distribution facilities will be exhausted by October of 1949, is that correct?

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A. Well, I think that is not what was intended. Our distribution facilities will not be exhausted, the carrying capacity of the inter-connecting lines between the Pacific Gas and Electric Company and our Company will be reaching its limit in the fall of 1949.

Q. Yes, that is what I meant, thank you. Now, in your consideration of this contract with the P. G. & E. were there any proposals made and submitted such as the Sierra building its own interconnecting line right through to Drum and to Spaulding? A. No, not—you are referring now to the negotiations between the Pacific Gas and Electric Company and Sierra Pacific Power Company?

Q. Right. A. No, that was not considered, our building beyond Donner Summit.

Q. Was the purpose here to sort of divide the cost between the two companies of this new transmission facility? A. That has been the procedure in the past and no one ever questioned it as being the procedure in the future.

Q. This contract, in your opinion, approximately divides the cost of providing plant facility? A. Well, it provides it, as has been testified here; it appears that our cost is going to be a little more than Pacific Gas and Electric Company's.

Q. Because of the substation construction by you? A. Because of the substation and the long line to construct.

Mr. Zahniser: That is all.

Commissioner Craemer: Any other questions?

(No response.)

Thank you very much, Mr. Devore.

Are you through, Mr. Dahlquist?

Mr. Dahlquist: Yes, Mr. Commissioner.

Commissioner Craemer: Were you through, Mr. Du Val?

Mr. Du Val: Nothing further to submit.

Commissioner Craemer: Anything further?

Mr. Frankhauser: I would like to ask Mr. Dahlquist whether there is any objection to considering the testimony submitted in Application 29,221, so far as it relates to the construction of this transmission line, in the application that was heard this morning, 29,202?

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Mr. Dahlquist: I would so stipulate.

Commissioner Craemer: For the benefit of those who may not be familiar with that application there was an application this morning and that application directed itself to an application on part of the Sierra Pacific Power Company to issue securities in the amount of three and a half million dollars to finance this and/or other projects in their Company. All except $750,000 involved financing of projects in the system as it is located in Nevada and in California and in their service area.

If there are no objections that portion of the evidence suggested in 29,221 will be received in 29,202 into that record.

Let us recess for a few minutes. (Recess.) The Commission will be in order, please. No further questions of Mr. Devore, who is next? Mr. Zahniser?

Mr. Zahniser: Yes, we have some witnesses.

If counsel has no objection, Mr. Commissioner, I would like to have the record show that Mr. Smith

is a qualified engineer and member of the Colorado River Commission and that his statements made this morning at this morning's hearing on the bond and at this afternoon's hearing be considered as sworn testimony and it will save the time of everyone, and considered as part of the record, if there is no objection.

Mr. Dahlquist: Well, I wish you would have those statements read again and tell me whether you, as a lawyer, think they are evidence.

Mr. Zahniser: Well, Mr. Dahlquist, we only offered them for statements as made.

Mr. Dahlquist: Well, I think that I would not question anyone's sincerity here on anything that they are advancing, but the statements that were made inherently, and right within their four corners, are so highly speculative, that this whole matter is—will Mr. Smith state that he has any assurance—I asked him if he had any knowledge of an appropriation by Congress and I understood him to say that he had no knowledge of an appropriation. I can not find out from the statement where the point of delivery is to be, when those appropriations are to be made, when the line will be built. It is highly speculative, and how that could be stipulated to be facts and evidence I do not know.

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Mr. Zahniser: Probably we ought to put Mr. Smith on.

Commissioner Craemer: Put him on the stand.

Mr. Zahniser: Will you be sworn, please.

ALFRED MERRITT SMITH, a witness called on behalf of the City of Reno, et al., being first duly sworn, testified as follows:

Direct examination:

Mr. Zahniser: Your address, Mr. Smith?

A. Carson City, Nevada.

Q. What is your business or occupation? A. I am the State engineer of Nevada and ex officio a member of the Commission and the Secretary of the Colorado River Commission of Nevada; I am also a member of the Public Service Commission of Nevada.

Q. Will you state your training and qualifications as an engineer? A. Well, I have spent a long life in engineering, a good part of it as a mining engineer in various parts of the Western United States and Central America.

Mr. Dahlquist: As far as the Sierra Pacific is concerned we will waive any qualifications of Mr. Smith.

Mr. Zahniser: May the record show that, Mr. Commissioner, that Mr. Smith is a qualified engineer?

Commissioner Craemer: It will.

Mr. Zahniser: Mr. Smith, you have made a study of the problem affecting the northern Nevada area covered by the distribution system of the Sierra Pacific Power Company?

A. Yes, sir, I have.

Q. And you have heard all the testimony given in this case relative to their proposed contract with the P. G. & E.? A. Yes.

Q. From your experience in these matters would you

say that that exhausts the field of available supply for them? A. I do not think it does.

Q. What further probabilities are there that might be

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studied in this matter? // A. In view of the fact that we have been offered a contract by the Bureau of Reclamation for additional energy it seems to me that there is additional energy available which could be taken advantage of and distributed through the facilities of the Sierra Pacific Power Company.

Q. Do you know what amount of energy might be available from Bureau sources? A. They have tendered us a tentafive contract for 90,000 kilowatts. I wish to explain, though, that that is not to be delivered in a block, it is subject to withdrawal under terms not yet written into the contract in comparatively small blocks over a period of years to be decided upon and in such annual amounts as may be agreed upon.

Mr. Du Val: Just so the record may be straight, Mr. Commissioner, I should like to make an objection to this entire line of testimony so I do not have to object to each and every question. I object to all of it as being entirely incompetent, irrelevant and immaterial so far as this proceeding is concerned.

Mr. Zahniser: So stipulated.

Commissioner Craemer: The objection is overruled.

Mr. Zahniser: Now, Mr. Smith, on your discussions of that matter with the Reclamation Bureau, is that a firm proposal of prime power?

A. Yes, it is firm power.

Q. And have you discussed what the cost of such power would be to the Sparks area, such as served by the Sierra Pacific distributing system? A. We have only taken the schedule of rates that they have submitted to us and looked them over; further discussion than that has not been had so far as I am aware.

Q. What rate was arrived? A. The rate on the sliding scale, if I may I can read it, or I can submit it as it was submitted to us by the Bureau of Reclamation.

Q. I think it should go in the record. A. Shall I read it in?

Q. Yes, if you will. A. The rate submitted to us is the rate that was submitted to the Central Valley Project in

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California, reading from the rates, the // interim schedule of rates for wholesale, firm power service, effective March 6, 1945, available in the area served by the Central Valley Project applicable to wholesale power customers for line and power service supplied through one meter at one point of delivery, not applicable to standby or auxiliary service or to the sale of some dump energy.

Character and conditions of service, alternating current, 60 cycles, 3 phase, normal, billed and metered at the low voltage side of substation. Monthly rate at the rate of—at 75 cents per kilowatt of billing demand, energy charge, first 130 kilowatt hours per kilowatt of billing demand at 4 mills per kilowatt hour, 6,136 kilowatt hours per kilowatt of billing demand at 3 mills per kilowatt hour, balance of energy used each month at 2 mills per kilowatt hour. Minimum bill a dollar per month per kilowatt of the larger: (A) Billing demand for current month; (B) contract rate of delivery; (C) 75 per cent of the highest billing

demand for the preceding 11 months exclusive of the irrigation and drainage pumping loads.

Billing demand will be the highest 30 minute integrated demand measured during the month. Adjustments for character and conditions of service, if delivery is made at transmission voltage, 33,000 volts or higher so that there is a relief of substation costs. The total bill as computed at above rates will be subject to discount of 5 per cent for transformer losses, if delivery is made at the high voltage side of the customer's substation; if metered at the low voltage side meter readings will be increased 2 per cent to compensate for transformer losses; for power factor none and customer will normally be required to maintian power factor at point of delivery of not less than 90 per cent lagging.

Q. Now, Mr. Smith, was there any estimate given you as to when transmission lines could be completed by the Bureau to the Reno-Sparks area? A. No, sir. It was stated to us that the construction of transmission lines depends upon appropriations being made by Congress that covers their cost.

Q. There is no appropriation made at the present time? A. I do not know.

Q. Was this—these figures you have just given us, do those represent the cost of delivery assuming that it would be delivered at a point of delivery in the Reno-Sparks

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area? // A. I assumed when they were first presented to us that it meant delivery at Shasta Dam, but during the conference there in Carson City just a few days ago under which we were endeavoring to have some emergency power supplied by the Bureau of Reclamation and wheeled into

the Reno area for relief of the brownout Mr. McPhail, chief electrical engineer of the Bureau of Reclamation corrected my statement, saying that these rates would be for delivery of energy at the end of the facilities owned and controlled by the Bureau of Reclamation. If those facilities extended to Reno it would mean delivery at Reno.

Q. From your experience as an engineer, Mr. Smith, what would be the approximate length of time required to construct a transmission line from Sacramento area into the Reno-Sparks area? A. I would not attempt to evaluate the time, Mr. Zahniser. I don't know.

Mr. Zahniser: Your witness—one further question, Mr. Commissioner, if I may?

Q. Mr. Smith, from your consideration and study of this subject do you think that the problem is one that deserves further consideration before a sound solution can be found to this problem? A. Yes, sir, I believe it should be very carefully studied to see if this proposed contract between the Pacific Gas and Electric Company and the Sierra Pacific Power Company might not have a retarding effect upon the development of the northwestern areas of the State that are now presently served by the Sierra Pacific Power Company.

Mr. Zahniser: Your witness.

Cross-Examination

Mr. Dahlquist: Mr. Smith, has there actually been a contract entered into?

A. No, sir, there has not.

Q. As a matter of law could the Colorado River Commission enter into a contract unless it had already entered into other contracts to take power with proper bonds putup? A. No, that is the limit of the authority of the Colorado River Commission. We can enter into a contract

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on behalf of the State for // the purchase of energy, but before placing that obligation upon the State the law provides that we must have resale contracts.

Q. Then, in other words, you can not create a direct obligation on the State of Nevada at all? A. That is true.

Q. You are really nothing but a conduit to arrange to have other people to purchase the power with a proper guarantee and bonds? A. I did not hear your question. I am a little deaf.

Mr. Dahlquist: Will you read the question? (Record read.)

Mr. Dahlquist: The Commission does not pledge its money or the money of the State or hazard its money in a contract of this sort. It must secure other people to purchase the power and have them base proper credit and bonds, and that is all done through agreements, is that correct?

A. I think that is. But, I might elaborate that the authority of the Colorado River Commission goes a little further. It is required to investigate the possibilities of purchasing outside power and their utility to the State. This authority began with the Colorado River Commission's administration of the Colorado River Power from Boulder Dam plant, which had been allotted the State of Nevada by law, and also was extended to include or give the Commission additional authority to investigate and work on any possibilities for improving power service to the State by purchase or otherwise.

Q. Well, the document that you have been reading from there has been characterized by counsel at one time an agreement, other times as a proposal, a no agreement at

all, is it? It has not been signed and executed? A. No, sir.

Q. It is merely— A. It is a tentative proposal.

Q. Basis for discussion? A. That is right, you are correct. It is a tentative proposal submitted to the Colorado River Commission as representative of the State of Nevada for their consideration.

Q. Then, at this time you could not tell us whether they would give you a firm contract or not? A. I still do not understand your question.

[1701]

Q. Well— A. We must assume from the contract that is presented to us it is a proposal to supply us with firm power being made by the Bureau of Reclamation. We can not do otherwise than assume they have the integrity and the ability to deliver power as suggested under their proposal as submitted to us for our consideration.

Q. Is there any provision in your even tentative proposal to the effect that the Reclamation Bureau does not have the abiilty and obligation to deliver that power if it is prevented from delivering power due to inadequacy of water for generation of electric power and energy herein contracted for as conclusively determined by the contracting officer? A. I think that provision is in the contract.

Q. Then it is not firm power? A. Well, this proposes to be a contract for firm power and, as you have already stated, it is not a final contract. We may find some so-called bugs in this, but we have it under consideration and it is a definite possibility.

Q. Mr. Smith, are you familiar with the fact that the Bureau of Reclamation entered into a binding contract

to supply the City of Roseville with electric energy from Shasta Dam and has failed for a period of 3 years to deliver any energy? A. No, sir, I know nothing at all of that.

Q. May I ask you this question, Mr. Smith, do you as a—I do not know which capacity I am addressing you or you speaking here, whether as a public service commissioner or as a member of the Colorado River Commission or just your general interest in Nevada. A. I have just—pardon me for interrupting—to clear the record just now I am speaking as a member and secretary of the Colorado River Commission of Nevada.

Q. But just from your general interest in Nevada do you think it would be sound and defensible policy to depend on your one great source of power on one line, one source? A. No, I do not think it would be. But this would not have this effect. It would be adding another line to the existing facilities owned by the two joint Power Companies.

Q. I do not understand that. You are talking about

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alternatives, are you not? // A. No, I am talking about a line which was—the possibility of the Bureau of Reclamation contributing another line.

Q. But that would be a single line? A. It might be a double line.

Q. I am a little confused. Do you think that there is any possibility that the Sierra Pacific Company can use the facilities of the Pacific Gas and Electric Company and also go and get power from Shasta Dam? A. Well, isn't that possible?

Q. That is utterly impossible, Mr. Smith. The record

has been made in this State and shown here that Pacific Gas and Electric Company having invested a few hundred millions in their facilities is not going to let those facilities be used to wheel power for somebody else to compete with it. Are you under the impression that the Sierra Pacific Power Company can hold on to what it has got, these facilities of the Pacific Gas and Electric Company, and also go and buy power from the Bureau? A. I think that if a line was constructed by the Bureau of Reclamation connecting Shasta Dam with Reno and a block of power was offered by the State of Nevada that was transmitted over that line to the Sierra Pacific Power Company that they could, if they desired, take and use that power. If they are tied up by contractual agreements with the Pacific Gas and Electric Company it might be difficult for them to do that.

Q. What would you do during the interim while the Reclamation Bureau built a line? A. They have a contract that is in existence now. What is the matter with that until such time as this line might be constructed?

Q. You have heard the evidence of the Company officers and engineers to the effect that by the fall of 1949 they will have reached the carrying capacity of the existing line. I do not think you could expect the Pacific Gas and Electric Company to make an investment of almost $600,000 for a new line if they thought the Reclamation Bureau was going to come in, would you? A. They expect to deliver power in this area and the area is growing. They have a market for it, why shouldn't they construct a line? The power that the Bureau would bring into the area would be additional to existing facilities, it would not be cutting in on it.

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Q. Then what is your objection to this contract, if that is additional, over and above, what is your objection to

the entering into this contract? A. Maybe we are not objecting. How many times have I said that here today? We merely want time to look this thing over. We are not quarreling with the Sierra Pacific Power Company or the P. G. & E. Company, we simply do not want this thing railroaded along until we have time to give proper study. The Colorado River Commission wants to study it, and I think the Public Service Commission wants to give it a little further attention and these—we have representatives of half a dozen cities in Nevada that are here questioning the advisability of this contract. You surely would not deny all these different municipalities and agencies the right to examine this further. That is all we are asking here.

Q. Mr. Smith, don't you think that there has been an exposition of the contract that anyone can understand today? A. There has been a one-sided exposition of the contract on the part of the Power Companies. We have not had anything to present, we have not even had time to study it. This contract was not placed in our hands until a few days ago.

Q. Do you mean that we should wait here and see if Congress will make an appropriation? A. No, sir, I did not say that. Just read the record back.

Q. We cannot get any Shasta power without an appropriation, can we, Mr. Smith? A. We are not ready to take Shasta power at the moment. Contracts are in existence that will supply our needs momentarily. Give us time to look at this.

Q. What do you mean by "time", Mr. Smith? A. Well, is it your purpose in this hearing to endeavor to have this contract agreed to by all these agencies in Nevada without having had a chance to have a look at it? That is what I mean.

Q. I do not know that these agencies have—I do not know that there is any reason why we must get the approval of these agencies to this contract. There isn't any legal jurisdiction of any agencies on this contract. That is a question of management. A. No, it is really a question of public service.

Q. And that is what the Company is, of course, en-

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deavoring to render. // A. This is a question of management, of course, involves business administration and for private companies involves the necessity of earning a reasonable profit and all those questions.

Q. Well, this is not evidence, we are just more or less arguing over things, but as a Commissioner of Nevada do you think that this Company would fulfill its duty if it let the time elapse between now and the fall of 1949 in view of their load conditions without taking steps to increase that load by that time? A. I think they should take steps to increase their transmission facilities.

Mr. Dahlquist: That is all.

Commissioner Craemer: Any other questions?

Redirect Examination

Mr. Zahniser: If I may, Mr. Commissioner.

Q. Mr. Smith, isn't it true that the Bureau is at present serving other public utility distribution systems and municipalities satisfactorily? A. Yes, I believe so.

Mr. Zahniser: That is all.

Recross Examination

Mr. Dahlquist: Which source? Which course, please?

Mr. Zahniser: Do you know from what sources those are now being supplied?

A. Sources on the Columbia River.

Mr. Dahlquist: Is that from Bonneville?

A. Yes.

Mr. Zahniser: Other sources than Bonneville?

A. I could not attempt to enumerate them, I haven't given that sufficient study.

Mr. Dahlquist: Do you know of any in California?

A. But there are a great number of plants, multiple purpose plants that have been constructed by the Bureau

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and so far as I know // they are functioning all right and giving the public adequate and satisfactory service.

Q. Mr. Smith, do you know of any communities in Northern California that the Bureau is serving? A. No, I do not.

Q. Do you know of any in Northern Nevada the Bureau is serving? A. No, they have none in Nevada, other than Boulder.

Q. Does Boulder serve Northern Nevada? A. It does not, no.

Mr. Dahlquist: That is all.

Mr. Zahniser: That is all.

The Witness: I would like to know if you would like to have a copy of this proposal that has been

submitted to the Colorado River Commission of Nevada made part of the record here?

Mr. Zahniser: We will offer it in evidence, if the Commission please.

Mr. Dahlquist: I object to it as evidence, it is not. What is it?

Mr. Zahniser: It has been identified as a proposal submitted.

Mr. Dahlquist: What does that mean?

Mr. Zahniser: It is a proposal.

Mr. Dahlquist: Whom does it bind?

Mr. Zahniser: No one, Mr. Dahlquist. Simply something to be put into the record so that we may study the situation and reach some sound conclusion as to the value of this contract or other proposal submitted.

Commissioner Craemer: The Commission will rule unless a representative of the Bureau is here to testify as to the facts in the proposal we can not receive it as an exhibit in this instance.

Mr. Zahniser: That is all.

The Witness: I might state further that at a meeting in Reno called by the Reno Chamber of Commerce I was asked to appear and discuss with them the advisability of further study of this contract that has been under discussion here today and as a result of that meeting there was a resolution passed. If it is your wish I will read the resolution and have it introduced in the hearing as an exhibit. It is signed by the Mayors and representatives of the various communities.

[1706]

Mr. Zahniser: I intended to introduce that

through another party who worked on the resolution.

Commissioner Craemer: Nothing further of Mr. Smith, you may be excused. I think it would be better to have one of the authors of the resolution offer it.

Mr. Zahniser: Yes.

Commissioner Craemer: Any questions of Mr. Smith?

Mr. Allard: No.

Commissioner Craemer: Thank you very much.

Mr. Zahniser: Mr. Branch, would you be sworn, please.

EMORY C. BRANCH, a witness called on behalf of the City of Reno, being first duly sworn, testified as follows:

Direct Examination

Mr. Zahniser: Your address, Mr. Branch?

A. Reno, Nevada.

Q. What is your business or occupation? A. City Manager of the City of Reno.

Q. Were you present at a meeting held at Reno, Nevada, yesterday, at the Chamber of Commerce rooms? A. Yes, sir.

Q. At that meeting was this contract here under discussion considered? A. Yes, sir, it was.

Q. And that group consisted of the Mayor of Reno, the Mayor of Sparks, the Mayor of Lovelock, a representative from Fallon, Virginia City, Carson City and several Chamber of Commerce groups? A. It did.

Q. Were you appointed on a committee at that time to draft a resolution as to the sense of the meeting? A. I was.

Q. I show you what purports to be a true copy of that resolution, and ask you to examine it and state whether you helped prepare that as a member of that committee?

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A. This is the same resolution, sir.

Mr. Zahniser: We will offer the resolution in evidence, if the court please.

Commissioner Craemer: No objection, it will be received and marked Exhibit No. 2, next in order.

Mr. Zahniser: Mr. Branch, have you had an opportunity to go over this proposed contract of the Sierra Pacific and P. G. & E.?

A. Just casually; I was able to see it 2 days ago—two and a half days ago, I believe it was.

Q. Have you been a member of a committee in Reno for some time working on this power problem? A. Member of the Chamber of Commerce committee.

Q. From your past study and investigation of this matter do you believe that further time should be given us to go over this thing and make any protests or affirmation of the contract we might think desirable? A. That is the request from the Chamber and also from the City of Reno officials.

Mr. Zahniser: Your witness, Mr. Dahlquist.

Cross Examination

Mr. Dahlquist: What investigation are you going to make, Mr. Branch?

A. Similar to what has been covered today, exploring all the facts to be sure that we protect the welfare of the people of the State of Nevada. We are selling, for instance, light and power from Boulder to California and we are turning around and buying it back at a much higher rate. We want to investigate the situation and at least be satisfied that the future interests of Nevada are upheld. Due to the high mineral resources of the State we must have a low industrial rate to develop our mineral resources. We know that we can not develop them much under—for a rate much over 5 mills. We have been talking about a rate here of 6.6. There might be a possibility of doing something about that and we want to investigate it and we are certainly not criticizing the Sierra Pacific Power Company; we are attempting to work with them.

[1708]

Mr. Dahlquist: No questions.

Mr. Du Val: No questions.

Mr. Zahniser: That is all.

Commissioner Craemer: Thank you very much.

Mr. Zahniser: That is all we want to present, Mr. Commissioner.

Commissioner Craemer: Well, gentlemen, let's hear what you want to say.

Mr. Du Val: So far as Pacific Gas and Electric Company is concerned it has made a contract with the Sierra Pacific Power Company which contemplates the supply of electric energy and power to that Company in order to meet what it anticipates will be the growing needs and demands of the Sierra system. It is clear from the testimony offered at the present time that the demands of the Sierra

Company in the month of December, 1947, is just about up to—very nearly up to the requirements under this present contract of 1938. Now, so far as the Pacific Company is concerned, it knows nothing about the situation in the State of Nevada or what may be the desire of the citizens of Nevada; the Pacific Company is interested and anxious to undertake the supply of power to the Sierra Company in order that it may meet its requirements, not only present but in the immediate future and for a period of years.

Now, obviously this matter can not be delayed as I see it. The Sierra Company—they can speak for themselves, or that Company can speak for itself—needs the power, is going to need it by the end of 1949. Construction by the P. G. & E. Company must go ahead; construction by the Sierra Company must go ahead. Nothing that has been presented on behalf of the interveners seems to me to have any particular bearing on this question. The immediate problem is more power for Sierra to meet its requirements; the contract we think is fair, just and reasonable to both parties; we think this Commission should act on it and act on it promptly. As I said earlier the only matter before this Commission is shall the Pacific Gas and Electric Company be authorized to supply power to the Sierra under the contract terms and conditions proposed; in my opinion nothing else is before this Commission and I believe the Commission should promptly proceed to render a decision in the matter.

Mr. Dahlquist: Mr. Commissioner, I think, of course, the record is so incontrovertibly clear that

both the Pacific Gas and Electric Company and Sierra Pacific Power Company have met any burden that rests upon them to show the crying need of entering into this contract and its reasonableness. There is no contrary evidence of any kind in this record that looks the other way. We have some speculation, but there is no evidence of anything to the contrary.

Now, I think that this Commission in the discharge of its duty, with the record that has been made here showing how dangerously close Sierra's position is to the limit of the load that its lines can carry and the growing community, and to set it over to some indefinite date on some highly speculative thing—nobody has come forward here and offered anything that is concrete and constructive at all, and as far as we know in the future to defer this thing until there had been an appropriation of Congress, and even then the Sierra Pacific Power Company might have to go on and try to get its power from the Pacific Gas and Electric Company; they could not afford to wait around, for the people of the communities that the Sierra Pacific Power Company is unable to supply that additional capacity and additional load, those people would be the ones that will be the most critical.

I think that this record shows that the Company has conscientiously and diligently studied the whole situation; there is no affiliation between the Sierra Pacific and the Pacific Gas and Electric Company, they have dealt on an arm's length basis; they have arrived at a contract that both parties, in good

faith, sincerely believe fair and reasonable and that Sierra Pacific Power Company knows is urgently needed, if they are going to serve this community it can not stand idly by now and wait until for some future appropriation of Congress, when even the people who talked about the Bureau at that meeting, that the Bureau officials themselves say that it will take several years, and common sense and common knowledge shows that it would take a long, long while; this Commission can take judicial notice of the fact that you can not go out and buy all the equipment necessary to build a high line, you can not go into a hardware store and buy it; some of this equipment takes 30 months or more. Why should we defer this thing? On this record I do not see how this Commission can do otherwise than immediately grant approval of this contract.

Mr. Allard: Mr. Commissioner, I state the position of the Public Service Commission. We have

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been subjected in Nevada to some // criticism as a public service commission for shortage of power which resulted in the brownout recently, they have accused us of not forcing the Sierra Pacific Power Company to provide for standby plants before this emergency occurred. Many people have been under the impression that, due to the haste that was being shown in having this contract approved, especially at the time when there is still 5 years to go before the present contract expired, they became suspicious and I was asked to attend this hearing. Through the courtesy of Commissioner Craemer we were told

that the hearing would be held on the 13th and we were asked to be here if we were interested. Commissioner Craemer knows my position and the position of the Public Service Commission.

We are delegated certain powers by the Legislature; we have certain duties to perform, and that is to see that the utilities give reasonably adequate service and that the rates paid are fair and reasonable.

I am not here to criticize the Power Company, whether it is the P. G. & E. or Sierra Pacific Power Company; I am not saying that the criticism that has been made is justified. I am just here to see that proper rates are put into effect which would be just and reasonable for the consumers in Nevada. I just want to make the position clear of the Public Utilities Commission, and not here to make it appear to any of you that we are criticizing the utilities or trying to block the approval of this contract.

Commissioner Craemer: In view of these numerous requests that we have had for time for study has anybody got—has anyone any desire to state something definite as to time?

Mr. Zahniser: Why, yes, if the Commissioner please. The group which is represented here by me, I think we were given a period of 30 days time in which to study this matter we could have a sufficient opportunity to go over the situation. And we are not here attempting to tell this Commission or the Power Companies that this is not the best contract that can be had; as Mr. Smith has stated here a number of times our only purpose in coming down here and intervening is to endeavor to find a solution

for the economy of our State, Northern Nevada, and if we are given 30 days time to study this thing perhaps we will agree whole-heartedly with Mr. Tracy and the other officials of the Sierra Pacific Power Company that this is the best answer to the problem. But, on the other hand, after just

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having come out of // darkness of two months we do not feel like we want to be railroaded into something that we do not know anything about, and we want to know where we are going now and in the future so that we do not have another blackout which threatens the economy of Northern Nevada. We want to be assured that the future will give us a power rate as economically as we ~~can get it~~ so we can develop our State, and if we were given that period of time I think that we can get this group together and if we approve this contract we will whole-heartedly tell the members of the Sierra Pacific Power Company that we do and if we disagree with them we will bring that before you to show why we disagree.

We would like to have the Commission continue this hearing for a period of 30 days so as to allow us to do that; if, before that time, we reach an agreement that this is the best thing we will withdraw any objection to the petition.

Commissioner Craemer: What is your time schedule on that, Mr. Dahlquist?

Mr. Dahlquist: Mr. Commissioner, I will have to refer to the other proceeding. I think that it has been stipulated that whatever is pertinent in the

other proceeding be deemed to be a part of this hearing. The Sierra Pacific Power Company is spending over $2,000,000 in 1948 and will have to spend another $2,000,000 in 1949. They have already gone into the banks on short term loans to the extent of $750,000, which bank loan falls due on July 1st.

The Company has filed a registration statement with the Securities and Exchange Commission registering three and a half million dollars of bonds to cover, in part, the heavy expansion construction programs. These heavy expansion construction programs—this heavy expansion construction program of the next 18 or 20 months.

Sierra Pacific can not stand idly by, it has to go ahead with this construction; it is doing so. They can not continue to borrow all that money from the banks, they are limited under the law, they must go to the Federal Power Commission.

We have gone to a great expense; the estimated expense of this registration statement, printing and all the rest of it is $46,000. You have to have a definite time when you register securities under the 1933 Act and have them offered under competitive bidding and then expect the underwriters to buy and

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reoffer them to the public. // A delay here could be fatal in many respects; we could miss the market. If we get to the point where we could not use this registration statement and had to start all over again it would be a great loss to the Company. And to what end? What is this 30 days wait for? Who

is going to make this investigation? Who has any qualified and competent people who are going to make any investigation and what result are you going to come up with? Certainly you want low cost of power in Nevada; that is a proper desire.

But do you think that anybody, after this Company has investigated this thing conscientiously over a year, that somebody is going to pass a miracle and appear here in 30 days or less and have some alternate plan, and that we are going to be able to meet all of the requirements for energy of the Sierra Pacific Power Company at some lower cost? That would be the purpose of any such requested delay; however, Mr. Commissioner, I say that these requests for delay on the grounds on which they are put do not bear scrutiny and won't produce any fruit. All you do is seriously jeopardize the Company's financial program. This is not a matter that 30 days is going to cure; this Company has been studying this problem for a year or a year and a half. They are not going to get any answers in 30 days. In the meantime you could seriously jeopardize this financial program. But they are certainly going ahead and spending money at the rate of almost $200,000 a month to improve the facilities of the service. They can not stop now, but they have to get money to pay for it. What will 30 days produce? What answer will Mr. Zahniser or anybody else come up with in 30 days? I say it is futile.

Commissioner Craemer: We will recess for 5 minutes. (Recess.)

Commissioner Craemer: On the record.

We will take this under submission subject—and I am in the unhappy situation that I haven't a stipulation from Mr. Dahlquist or his clients—and in both instances, in Application 29.221 and 29.202, but the Commission will feel free to reopen the case for hearing on May 3rd if Nevada has any further pertinent testimony to offer. I think they should have it in our hands sufficiently in advance so our Legal Department might look it over and say whether it is sufficiently pertinent to reopen the case.

Mr. Dahlquist: May I ask that counsel be served with that so that we know what we are confronted with?

[1713]

Commissioner Craemer: Yes, I think that is the way to expedite it. I think we should all agree to it, and if we are not served with whatever material you have, if you have anything to request here for the 3rd of May then this Commission will then proceed to issue an order on the 4th of May.

Mr. Smith: How soon should that material be in hand?

Commissioner Craemer: Mr. Frankhauser, what do you think about that, and Mr. Wehe?

Mr. Frankhauser: Three days before the tentative date for hearing.

Mr. Smith: That would be on the 1st.

Mr. Wehe: Shouldn't the record also show that your recommendation as to the extension of time is agreeable, under the circumstances, to the representatives and to counsel for the agencies of Nevada?

Commissioner Craemer: And the Pacific Gas and Electric Company. Will you so stipulate, Mr. Zahniser, for the record?

Mr. Zahniser: So stipulate.

Commissioner Craemer: How about you, Mr. Du Val?

Mr. Du Val: We so stipulate.

Commissioner Craemer: Very well, and we will consider the matter submitted on that date.

(Whereupon, at the hour of 6:10 o'clock P.M., the Commission adjourned.)

* * * * *

EXHIBIT 13

[1714]

Decision No. 41537

BEFORE THE

PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

In the Matter of the Application of PACIFIC GAS AND ELECTRIC COMPANY and SIERRA PACIFIC POWER COMPANY for an order of the Public Utilities Commission of the State of California granting and conferring upon applicants all necessary permission and authority to carry out the terms and conditions of a written contract by and between said parties, dated March 4, 1948, (Exhibit "A" hereof).	Application No. 29221

ROBERT H. GERDES and RALPH W. DUVAL for Applicant Pacific Gas and Electric Company

T. W. DAHLQUIST, C. L. BARNARD, and W. J. FORMAN for Applicant Sierra Pacific Power Company

J. G. ALLARD and ALFRED M. SMITH members of Public Service Commission of Nevada

ALFRED MERRITT SMITH for Colorado River Commission of Nevada

C. Lester Zahniser, for Cities of Reno, Sparks and Fallon; Chambers of Commerce of Virginia City, Reno, Douglas County and Carson City, and Nevada Retail Merchants Association.

Opinion

Pacific Gas and Electric Company and Sierra Pacific Power Company, in this application, request an order and decision granting all necessary permission and authority to carry out the terms and conditions of a written contract dated March 4, 1948, a copy of which is marked Exhibit "A", attached to and made a part of the application. The proposed contract provides for the sale and delivery by Pacific to Sierra and the purchase and receipt by Sierra from Pacific of electric energy which Sierra shall require for resale to its customers and for use in the conduct of its electric business.

Energy has been delivered for many years by Pacific to Sierra and its predecessor through interconnecting lines in the

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vicinity of Summit, Placer County, California. This delivery in recent years has been under an agreement dated June 6, 1938, and executed pursuant to authorization by this Commission in Decision No. 30922 in Application No. 21948. Electric service under the existing agreement has been supplied by means of two 60 kv circuits having a combined capacity of 30,000 kw. Said agreement of June 6, 1938 was to continue in effect until November 1, 1953, and reserved to Sierra the right to purchase power from other parties than Pacific, subject to payment to Pacific, in addition to standby charges prescribed in said agree-

ment, a sum of not less than $75,000 per year for each year during which such additional purchases might be made.

Under the contract for which applicants now request authorization, Sierra agrees to purchase from Pacific all electric energy required for resale to its customers and for use in the conduct of its electric business, except such energy as it may generate in its existing plants and such energy as it now purchases or may hereafter purchase from others under minor standby and minor exchange agreements.(1) Pacific is to provide a new 110 kv transmission line extending from its Drum powerhouse to the point of delivery at Summit where connection will be made with a 110 kv transmission line to be constructed by Sierra extending from Summit to a substation also to be constructed by Sierra at a convenient point in California. The 110 kv transmission line will have a capacity of approximately 40,000 kw and Sierra's substation, providing for transformation from 110 kv to 60 kv, will also have a capacity of 40,000 kw. The new contract further provides if, during its term, Sierra requires more power and energy than Pacific can supply through the existing 60 kv lines and the

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first 110 kv line, then Pacific and Sierra will either construct a second 110 kv transmission line or convert one of said existing 60 kv lines to 110 kv.

The term of the contract which was executed by applicants March 4, 1948, and for which applicants now request authorization, is to become effective as of January 1, 1948,

(1) During 1947, Sierra generated 80,685,789 kwh in its own plants, purchased 85,205,519 kwh from Pacific, and received 3,336,400 kwh from others.

upon procurement of the authorization herein requested, and remain in effect until December 31, 1964, or until 15 years after the date when the first 110 kv line goes into service, whichever is the later, provided that if further construction or conversion of a second 110 kv line is required of Pacific after January 1, 1950, Sierra will then extend the contract for a period of 15 years from the date when said second 110 kv line goes into service.

The rates provided under the contract for which authorization is requested are lower than the rates contained in the existing agreement and are the same as the rates and charges presently effective on Pacific's Schedule P-31 for service at voltages in excess of 25,000 volts, with the addition of an annual standby charge of $30,000 per year for not more than 4,000 kw. The standby charge is the same as contained in the existing agreement of June 6, 1938, and the standby requirements of Sierra may at the option of either party be reviewed and adjusted at the end of each successive 3-year period during the term of the agreement. The new contract further provides that Pacific will pay to Sierra a monthly payment equal to 1/12 of the annual fixed charges for interest, depreciation, maintenance and taxes based on the installed cost of Sierra's 110 kv to 60 kv substation plus 1/12 of the annual operating costs of said substation. The amount of said fixed charges for this purpose shall be deemed to be 10% of Sierra's investment of said substation which is estimated to be approximately $300,000 but in no event shall the combination of costs of operation and fixed

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charges exceed $2,500 per month. Energy is to be delivered to Sierra at the point where Pacific's lines contact

those of Sierra at Summit in Placer County. The reading of meters shall be combined and simultaneous demands shall be used for billing purposes under the contract.

Section 12 of the new contract provides that it shall at all times be subject to such changes and/or modifications as this Commission may from time to time direct in the exercise of its jurisdiction.

A public hearing was held in San Francisco on Thursday, April 15, at which time the interested parties were free to present their views. Representatives of cities and organizations in Nevada requested additional time in which to study the effect of the contract and raised some questions as to whether or not the proposed agreement was the most advantageous solution for Nevada in the obtaining of additional power supply. Reference was made to the possibilities of securing power from other sources. However, the record clearly shows that none of these other sources could be developed or could be obtained before 1951 at the very earliest and further that development by that time was uncertain. Contrasted with this it was shown that the present resources of the Sierra Pacific Power Company would supply the load growth in its area until 1949, and that it was imperative that additional power be secured before the close of that year or Sierra would be unable to fulfill its public utility obligations. It was further testified that the proposed contract would make available the added power requirements as needed, and the purchasing utility urged that the agreement be authorized without delay.

At the close of the hearing on April 15, those appearances who requested additional time for consideration agreed that the matter might stand submitted unless they presented to the Commission on or before May 1, 1948

additional information which, in the Commission's opinion, would warrant a reopening of the proceedings for further hearing.

[1718]

The Commission being advised that the appearances from Nevada do not desire to present further evidence and are agreeable to consummation of the proposed contract, the matter is ready for decision.

ORDER

Application as above entitled having been filed, a public hearing thereon having been held, the matter having been submitted, the Commission being fully advised in the premises and hereby finding that the granting of this application will be in the public interest,

IT IS HEREBY ORDERED that Pacific Gas and Electric Company and Sierra Pacific Power Company are hereby granted all necessary permission and authority to carry out the terms and conditions of the written contract dated March 4, 1948, a copy of which is marked Exhibit "A" attached to the application, and to deliver and charge for on the one hand and receive and pay for on the other, electric energy at the rates and under the conditions provided in said contract.

IT IS HEREBY FURTHER ORDERED that Pacific Gas and Electric Company shall, within 30 days from and after each of such dates, notify this Commission of the date when the first 110 kv line goes into service, and of the date when the second 110 kv line goes into service.

The effective date of this Order shall be the date hereof.

Dated at San Francisco, California, this 27th day of April, 1948.

R. E. MITTELSTAEDT
JUSTUS F. CRAEMER
IRA H. ROWELL
HAROLD P. HULS
KENNETH POTTER
Commissioners

Certified as a True Copy
NOËL COLEMAN
Asst. Secretary, Public Utilities Commission
State of California

EXCERPTS FROM EXHIBIT 14

[1719]

BEFORE THE

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Commissioner ROWELL and Examiner EDWARDS, Presiding.

In the Matter of the Application of PACIFIC GAS AND ELECTRIC COMPANY for an order or orders of the Public Utilities Commission of the State of California (1) authorizing applicant, on an interim basis, to immediately increase its electric rates and charges; and (2) prescribing and establishing increased definitive electric rates and charges to be collected by applicant.	Application No. 30,717.

* * * * *

[1720]

San Francisco, Calif., Dec. 16, 1949: 10 o'clock A. M.

Commissioner Rowell: We will be in order, please.

* * * * *

[1721]

Mr. Duval: Call Mr. J. S. Moulton.

J. S. MOULTON, a witness called on behalf of the Applicant, being first duly sworn, testified as follows:

Direct examination:

* * * * * *

[1722]

Mr. Duval: Mr. Moulton, are you an employee of the Pacific Gas and Electric Company?

A. Yes, sir.

Q. What position do you occupy? A. Vice-president and Executive Engineer.

* * * * *

[1723]

Q. Now, attached to the amended application, Mr. Moulton, as Exhibit K is a list of customers of the Pacific Gas and Electric Company which the Company proposes to exempt from the increase in electric rates and charges as proposed for the balance of the customers under the many applications. Will you, in a general way, indicate the character of the service supplied to those customers and the reason for exempting them from the proposed 6 per cent increase in rates? A. Yes. I will have to describe

[1724]

those customers // either individually or by groups, as the systems differ among them. The Company sells electric energy for resale to the Cities of Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto, Redding, Santa Clara and Ukiah and to the Plumas-Sierra Rural Electric

Cooperative under new 5-year contracts which were negotiated during the last 6 months of 1949. The Plumas-Sierra contract, which is listed in Exhibit K as being then under negotiation, has since been executed and approved by the Rural Electrification Administrator and delivered to us. The contract so delivered is dated October 26, 1949, although we received it perhaps 2 weeks ago. The first of the—

Q. Pardon me, Mr. Moulton. Is it a fact that that contract is now pending before this Commission in connection with a formal application for authorization to carry it out? A. It is. Of the group of contracts I have described the first to be signed was that with the City of Redding. That contract was offered to the City in order to avoid the loss of Redding as one of Pacific's electric resale customers. At about the same time the Company offered the contract which was subsequently accepted the Bureau of Reclamation offered a form of power contract. The Redding City Council, following a consideration of the two proffered contracts called a special election and submitted to the voters the proposition of from what source the City should purchase electric energy for resale.

[1725]

At the election on June 28, 1949, a majority // voted in favor of purchase from Pacific. A contract was then executed, subject to the approval of this Commission, which then authorized it in Decision 43,147. The opinion in that decision stated in part: "We need not repeat here the references to prior decisions in proceedings which involved the right of a utility to reduce its rates in order to meet competition. A clear statement of the Commission's position was given in Decision No. 38305 (46 C.R.C. 120)." The Company, following the approval of the Redding

contract, likewise offered new 5-year contracts to the other cities named and to the Plumas-Sierra Co-op in order to insure retention of them as electric resale customers. This Commission approved each of the City contracts and, as I have stated, application requesting approval of the Plumas-Sierra contract is now before the Commission. The language in the several decisions approving the city contracts is substantially the same in each of them as to the reasons for approval. Because of the competitive conditions under which these contracts were negotiated, which reasons were recognized by the Commission in authorizing them, we believe that the contracts with all of these cities and with the Plumas-Sierra Cooperative should be exempted from the requested increase.

As to Roseville we are still negotiating for a 5-year contract. If that contract is not obtained by the time this matter is ready for submission it is our intention to ask

[1726]

that Roseville be removed from the exempt list. The contract with the Sacramento Municipal Utility District was made at the same time the contract was made for the delivery to it of the electric system it was seeking to condemn. In approving both contracts this Commission in Decision No. 39,108 stated in part, and I quote: "It is evident that the execution of some such agreements as these in preparation for the actual severance and delivery of electric properties being taken by right of eminent domain would be in the public interest. An attempt to effect such a severance by force of court decree alone without the cooperation and agreement of the parties themselves with respect to many details might result in inconvenience and even hardship to electric customers, both within and without the boundaries of the

District, as well as to increase the costs of severance to the District and to the utility. Obviously, also, it is desirable that the parties make an agreement with respect to the purchase and sale of power through a reasonable period of time. It is our opinion that the public interest requires that Pacific be authorized to perform and carry out all the provisions of the aforesaid agreements with the District." Delivery of electric energy under this contract commenced at the time the electric system was delivered to the Sacramento District on December 31, 1946. The power contract expires June 30, 1954, or approximately 4½ years hence. Because of the conditions

[1727]

under which the contract was // negotiated and the fact that its expiration date is not greatly different from those in the city contracts I have described we believe the Sacramento contract should be exempted from the requested increase. There is one other similar contract which should be added to Exhibit K, in my opinion. That is a 15-year contract made with the Sierra-Pacific Power Company dated March 4, 1948, which was approved by this Commission in Decision No. 41,537 dated April 27, 1948. That contract was negotiated under conditions much the same as those which existed in the case of the Redding contract, and these other contracts which I have described.

Mr. Duval: At this point, Mr. Commissioner, I ask that Exhibit K of the amended application in Application No. 30,717 be deemed amended by including in Exhibit K under the subheading "Other utilities" Sierra-Pacific Power Company, and under the column "Date of contract" March 4, 1948.

Commissioner Rowell: Very well.

* * * * *

EXCERPTS FROM EXHIBIT 15

[1729]

SAN FRANCISCO, CALIFORNIA, JAN. 18, 1949:
10 O'CLOCK A.M.

* * * * *

[1732]

J. S. MOULTON, recalled.

Cross-examination:

* * * * *

[1733]

Mr. MacKay * * *.

Q. In your testimony you requested that your contracts under Schedule P-31, I believe, should be exempted from this proposed increase, is that a fact? A. No, sir.

[1734]

I testified. I testified that we asked that those particular customers and contracts listed under P-31 of the amended application be accepted.

Q. Would you briefly outline your fundamental reasoning for asking those exceptions?

Mr. Duval: He already gave them in his testimony.

Commissioner Rowell: He may answer.

Mr. MacKay: And you specified, among other purchasers, the Sierra Power Company, Southern Sierra Power Company in Reno?

A. The Sierra Power Company, yes.

Q. Are you familiar with the operation and the territory covered by that Company? A. Only in a general way, Mr. MacKay.

Q. Are you familiar with the ownership or control of that Company? A. No, sir.

Q. You don't know whether it is a Stone and Webster Corporation? A. I have been told that it is.

* * * * * *

[1735]

Q. Just exactly as applied to that particular Company, what justification is there for asking that the 6 per cent, or whatever you may be allowed in this proceeding, should be accepted in that contract? A. For the reason that I stated in my direct examination, Mr. MacKay. That goes largely to the fact that the contract along with the contracts such as with the City of Redding, which you heard something of this morning, were obtained under competitive conditions with those groups in Nevada which were actively interested in trying to get the Bureau of Reclamation to give service to the Sierra Pacific area in Nevada from the Central Valley Project in California. We finally made a 15-year contract with Sierra Pacific. We made a longer contract because we undertook to build an additional line to supply them and we felt we needed that protection of a long contract. I am very sure that those competitive conditions existed then and that there is still agitation among certain groups in Nevada to get a line and that—

Q. Do you think there was any reason for the Federal Government building a line over the Mountains to supply that area with electricity in view of the conditions that prevail, as far as the Government furnishing any similar

[1736]

type of energy to the people of California? A. Yes, I do.

Q. What groups in Nevada, if you recall, what particular groups was it that acted in that behalf? A. It was either an official—I think, any official State body known as Nevada-Colorado River Commission. They held a series of meetings on that matter. Met with the Bureau of Reclamation representatives, according to the information that reached me. Also at that time two United States Senators in Nevada, Senator McCarran and Senator Maloney have both personally given time and attention to that matter.

Q. Is there any provision in this contract with the Sierra Power Company that would prevent this Commission in any way from including them in any increase that may be granted?

Mr. Duval: That is a legal question. I think the contract speaks for itself. It is on file with the Commission and made a part of this record by reference. I object to the question.

* * * * *

[1737]

Recross-examination:

* * * * *

Commissioner Rowell: Any further questions? Mr. Mess, do you have any?

[1738]

Mr. Mess: Yes, I have one or two. * * *

Q. I assume you are familiar with the contracts covering resale accounts set forth in Exhibit K of the application as amended? A. Yes, sir.

Q. What are the estimated revenues for 1950 at present rates, for the exempted resale contracts in round figures, if you can give it to me? A. In round figures, Mr. Mess,

[1739]

including the Sierra Pacific Company, it is $5,850,000.

Q. Can you state the approximate amount of increase, if these customers were included in the 6 per cent proposed increase? A. $351,000.

Q. What percentage increase as to, with the Company's electric, greatest electric revenues for 1950 at your proposed rates? A. At the proposed rates where the estimated revenues amount to slightly over $165,000,000 the amount of $351,000 is approximately .2 of one per cent.

Q. .2? A. Yes.

Q. Have you an opinion as to whether the revenues derived under these contracts for these resale customers for 1950 are sufficient and adequate to offer the out-of-pocket cost of rendering that service? A. Yes, I believe they are.

Mr. DuVal: You mean without the 6 per cent increase, Mr. Mess?

Mr. Mess: Yes, sir.

Q. Now, if that is your conclusion, what is your opinion as to whether the serving of these customers at the contract rate will impose a burden on any class of other customers of the Company? A. No. I am quite sure that it will not impose any burden on any other class of customer.

Q. And would it be your opinion, then, that if that should result in any burden, that the burden then should

[1740]

not be borne by the balance of the customers? A. Yes, I would agree with that, that the other customers should not bear any part of the burden if there is such, of supplying these resale customers.

* * * * *

EXCERPTS FROM EXHIBIT 16

[1742]

San Francisco, Calif., Feb. 10, 1950: 10 O'Clock A.M.

Commissioner Rowell: We will be in order please.

* * * * *

[1743]

Closing Argument of Mr. Duval:

* * * * *

[1744]

Only one other point to be commented on, and that is the so-called exempt customers. Mr. Moulton testified, I think both on direct testimony and on cross-examination concerning the facts and circumstances which gave rise to the special contracts with the municipal resale customers.

[1745]

The Company is having contracts with all those customers, except the City of Roseville, which I need not comment on any further. In essence, it was a question of holding the business or losing the business. The Company, in its judgment, concluded that all things considered, it was valuable to it and not a detriment to its customers that the endeavor be made to hold those customers on the lines. And for that reason, it did quote special rates. Most of those contracts, most of those customers are now under contract with the Company for a period of approximately 5 years, and in one or two instances, longer periods, so we have retained the customers. And certainly, we are not spending hundreds of millions of dollars, as Mr. Bowden said, without any support in the record to hold that business, or supply the additional revenues to those customers as their loads grow from time to time.

Now, I think Mr. Moulton also testified that he was quite satisfied that the customers were not being supplied at less than the out-of-pocket cost of service and that had relation to the increment cost and the specific facilities that might be required for those customers alone.

In view of the fact that we have made these very recent contracts at somewhat reduced price, although most of them are P-31, with a minor adjustment in the ratchet provision of the P-31. It is available to any resale customer who will sign a

[1746]

5-year contract, so, it is a very // minor modification from a filed tariff, except as to the City of Red-

ding, which has a lower rate than the other customers because of its approximity to Shasta Dam, and because of the unusual situation. But to hold that, we had to offer a lower rate, and the matter went to an election, as he previously recited to this Commission, and the customers, the citizens voted in favor of taking service from the Pacific Gas and Electric Company. I think anybody would agree that we would be accused of double dealing repudiation if we had, immediately after having made a contract with the City, then appeared before this Commission and asked that the rates be increased 6 per cent when the people voted on the issue as to whether they would take service from the Company at the then effective or their offered rates as against the service offered by the Bureau of Reclamation. A somewhat like situation obtains in respect to the other resale municipal customers. Those contracts were very recently executed. They were—The Commission authorized the Company to carry the contracts out in accordance with their terms, and the Company felt obligated that it should not apply for an increase in respect to those customers.

We believe, in the long run, that the holding of those customers will not; and we believe it is the holding them now at the rates charged are not detrimental to the remaining customers. And I have no hesitation in saying that at any time this Company is—is applying to this Commission for

[1747]

full, // fair and reasonable rates involving all classes of customers, and the Company still requests that

this Commission exempt the resale customers under contract from any such increase when full, fair rates are involved, that if the Commission should find that any of those customers are supplied at an actual out-of-pocket loss, and, therefore, constitute a burden on the remaining customers, I will stipulate on behalf of the Company that it can assume for the purpose of rate making that we are at least earning the out-of-pocket cost so that there will be no burden on the remaining customers. By that I mean take into account how much additional revenues we would require to obtain the out-of-pocket cost.

* * * * *

EXCERPTS FROM EXHIBIT 17

[1749]

Decision No. 47832

BEFORE THE

PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

In the Matter of the Application of PACIFIC GAS AND ELECTRIC COMPANY for an order of the Public Utilities Commission of the State of California under Section 63 (a) of the Public Utilities Act authorizing applicant to increase its electric rates and charges in the manner and to the extent herein stated.	Application No. 32589

* * * * *

[1787]

Present Schedule P-6 is applicable to electric service supplied at standard voltages of 2,200 volts or over, to other electric utilities and to municipalities for distribution and resale where such utilities or municipalities take their entire electric supply from the applicant. Present Schedule P-31 is optional with Schedule P-6 and is available only on contracts for periods of five years. The level

of Schedule P-31 is roughly 10% below P-6 before the application of the rural discount allowed on Schedule P-6.

Applicant requests that increases be made in its filed tariffs P-6 and P-31 of approximately 18% on the average but also requests exemption from any increase whatsoever for one resale customer, the City of Redding, operating under a special contract. Applicant's reason for requesting exemption for this customer is to meet the competition from government power produced at the nearby Shasta Dam. It is also requesting authority to increase the rates to 15 public resale customers taking service under contracts that contain rates, charges and conditions that are in general lower than or differ from the filed tariffs P-6 and P-31.

Most of the resale customers had representatives at the hearings and argued that they were in the same competitive position as the City of Redding, notwithstanding the fact that they were located at a much greater distance from the source of power and transmission facilities of the government. They contended that they were entitled to the same exemption from any rate increase and argued that, through the so-called "Wheeling Agreement" between the government and the applicant, government power is available to them.

It is clear from the record that the applicant believes the threat of competition by the government is much greater within the City of Redding than elsewhere in its service area at this time. In the past it has sought and obtained approval of these resale contracts at rates less than the filed tariff rates to meet this potential competition and hold the business. On many occasions the Commission has recognized the effect of competition in establishing the levels of rates, stating in each case that the

maintenance of competitive rate levels could not be permitted to burden other customers.

Each competitive situation must be viewed in the light of the peculiar conditions existing. In any case the fundamental question is whether or not the continuance or discontinuance of service to customers in the competitive area will support or burden the company's operations and

[1788]

its // service to customers in other areas. This is a complex problem and one in which the extent of burden has not been exactly determinable in the past for lack of a cost study. We now have a cost study that shows that applicant's proposed resale revenues are roughly 35% below the indicated 1952 cost of rendering the service.

It is the Commission's opinion that the present resale Schedules P-6 and P-31 would create unreasonable burdens upon other customers if continued in the future at present rate levels. Applicant proposes an approximate 18% increase in these schedules; however, in the case of the lower P-31 schedule a further increase appears to be justified. The most logical method to treat the resale schedules appears to be to consolidate the proposed P-6 and P-31 schedules into one resale schedule, redesignate it Schedule "R" and set it at a level to give approximately the same total annual revenue from customers on the filed tariffs as proposed by applicant. In order to bring the new resale schedule more in line with indicated costs, the former 10% rural development discount in Schedule P-6 will be eliminated. The requirement of a five-year contract in Schedule P-31 will be removed in favor of an initial three-year contract period for new customers only.

In connection with the rezoning being undertaken it ap-

pears reasonable to extend the territory covered by this new resale schedule to all territory served except the Humboldt Division and the Fort Bragg area. No resale rate need be drawn to apply to resale service in Humboldt and Fort Bragg because presently there are no resale customers in these areas.

Special Resale Contracts

Among the special resale contracts which applicant seeks to alter in this proceeding is one involving the sale of electric energy at wholesale to Sierra Pacific Power Company at the Sierra summit. The present contract, dated March 4, 1948, was approved by this Commission in Decision No. 41537. This agreement was a renegotiation of prior contracts extending as far back as 1923 covering this point of delivery. The contract covered, in addition to rate structure, other features of delivery including building of additional lines on the part of both parties and the establishment of a contract term of 15 years to provide protection to both parties. This contract was concluded after negotiations extending over about a year's time. The protestant, Sierra Pacific Power Company, makes the point that if conditions are shown to justify a change in the rate, which conditions it denies have been shown, then the contract rates might be altered but that such alteration should be made by agreement of the parties and submitted as previous contracts have been for approval by this Commission.

[1789]

The Sacramento Municipal Utility District objects to the alteration of the resale contract existing between it and applicant, pointing out that the rate provisions of the

contract are part and parcel of many considerations involving the approval of two contracts between applicant and the District in April, 1946. In one of these contracts, the electric distribution system of the applicant within the District was transferred to the District and in turn the District bound itself to purchase power from the applicant for a period of 7½ years. Protestant points out that this contract does not contain the usual jurisdictional clause. The cities of Alameda, Palo Alto, Lodi, Lompoc, Roseville, Santa Clara, Healdsburg, Ukiah, Biggs and Gridley and the Plumas-Sierra Rural Electric Cooperative all have resale special contracts with applicant. Each of these customers signed contracts whereby they agreed to purchase their electric energy from applicant for a five-year period. Counsel for these parties represented that it would be grossly unfair to alter the terms of these contracts without affording the customers an opportunity to negotiate such changes with the applicant and, in support, pointed out that the contract with the City of Alameda was entered into as late as June 26, 1951. On that date the City of Alameda committed itself to purchase power for a five-year period from applicant rather than seek an alternative source of power. It is alleged that no mention was made to the City by applicant of a proposed rate increase at that time but that applicant did file the present application 22 days later and the protestant stressed the injustice of the City's being bound by contractual relations for a five-year period if the rate portion is to be altered without the City having the opportunity to negotiate such a change.

The company's witness testified that the company did not state when the contracts were first entered into that there would never be a change in rate during the life of

the contract and that a jurisdictional clause in general is required in each contract.

The cities of Lompoc, Healdsburg and Ukiah in the past have been at higher rate levels than the other contract customers. In the future these cities will be eligible to the regular resale rate level with the change in territory zoning.

The Commission, in considering these special contracts, is of the opinion that an opportunity should be afforded the parties to renegotiate these contracts, should they so determine. It is obvious that underlying costs have increased since these contracts were negotiated. Since by this decision a new basic resale schedule is being adopted, opportunity should be afforded for renegotiation of these contracts in the light of the new basic resale schedule.

[1790]

The revenues from these services will be computed // at the new resale schedule for the purpose of determining applicant's over-all revenue requirements only, but the rates for such resale contract customers will not now be increased. By this method no burden will be placed on the other classes of customers but any burden will fall on the stockholders' portion of the earnings until such time as the contracts may have been renegotiated and have been authorized by the Commission. No special exemption from this method of treatment will be made for the City of Redding resale contract.

In connection with these special contracts, we point out that the applicant, in order to forestall alleged govern-

[1] The clause specified by General Order No. 96 of this Commission is "This contract shall at all times be subject to such changes or modifications by the Public Utilities Commission of the State of California as said Commission may, from time to time, direct in the exercise of its jurisdiction."

ment competition, requested authority from this Commission to enter into said contracts with the clear understanding that its stockholders must bear any burden which the applicant might sustain as a result of the operation of any such contracts. Therefore, equity calls for the treatment which we have accorded to these special contracts.

• • • • •

[1794]

ORDER

Pacific Gas and Electric Company having applied to this Commission for an order authorizing increases in electric rates and charges, public hearings having been held, the matter having been submitted and being ready for decision,

IT IS HEREBY FOUND AS A FACT that the increases in rates and charges authorized herein are justified, and that present rates in so far as they differ from those herein prescribed for the future are unjust and unreasonable; therefore,

IT IS ORDERED AS FOLLOWS:

1. Applicant is authorized and directed to file in quadruplicate with this Commission after the effective date of this order, in conformity with General Order No. 96, revised schedules with changes in rates, terms and conditions as set forth in Exhibit "A" attached hereto, and after not less than five (5) days' notice to this Commission and to the public to make said rates effective for service rendered on and after November 10, 1952.

2. At the time of making effective the rates authorized by Section 1 hereof, applicant may withdraw and cancel all present schedules and transfer the cus-

tomers on such schedules to the appropriate new schedules generally applicable in the areas and for the type of service involved.

3. Applicant is not authorized to increase the rates prescribed by the following contracts but may effect increases through renegotiation

[1795]

of the contracts, either by placing the business on applicable filed tariff rates wherever possible, or by submitting the renegotiated contracts for approval by this Commission in the manner specified by General Order No. 96:

Contract	*Dated*
City of Alameda	June 26, 1951 August 11, 1949
City of Palo Alto	August 17, 1949
City of Redding	July 5, 1949 December 5, 1949
City of Lodi	September 21, 1949
City of Gridley	July 21, 1949
City of Santa Clara	August 16, 1949
City of Roseville	September 6, 1950
City of Biggs	August 5, 1949
Plumas-Sierra Rural Elec. Coop. Inc.	October 26, 1949
City of Healdsburg	September 6, 1949
City of Ukiah	September 6, 1949
City of Lompoc	September 12, 1949
Sacramento Municipal Util. District	April 9, 1946 November 6, 1950
Sierra Pacific Power Company	March 4, 1948
Turlock Irrigation District	January 7, 1942
U. S. Dept. of Interior, Yosemite National Park	September 11, 1944
Byron Bethany Irrigation District	December 12, 1950
West Stanislaus Irrigation District	December 28, 1950
Banta-Carbona Irrigation District	May 14, 1951

Contract	*Dated*
East Contra Costa Irrigation District	July 10, 1951
Patterson Water Company	June 20, 1951
Southern San Joaquin Mun. Util. Dist.	July 3, 1951
City and County of San Francisco	
(Street Lighting Service)	March 14, 1945
(Supplemental Power and Energy)	April 18, 1945
Fruit Growers Supply Company	December 27, 1944
Eureka Redwood Lumber Company	April 12, 1951
Ames Aeronautical Laboratory	October 1, 1945
Hammond Lumber Company	October 19, 1931
California Oregon Power Company, The	October 4, 1950
Mare Island Navy Yard	July 1, 1949

No rate increases are authorized in applicant's contract with The California Oregon Power Company, dated October 4, 1950, pending renegotiation, except in so far as changes to applicant's Schedule P-31 herein authorized may affect rates or charges under said contract.

* * * * *

[1797]

APPLICATION No. 32589

EXHIBIT A

AUTHORIZED REVISION OF ELECTRIC TARIFFS OF PACIFIC GAS AND ELECTRIC COMPANY

* * * * *

[1833]

ITEM 24: SCHEDULE R
RESALE SERVICE

Description of Service:

This schedule is applicable, on contract for a period of 3 years when service is first rendered to a new customer,

for electric energy supplied at standard voltages of 2,200 volts or over to other electric utilities and to municipalities for distribution and resale where such utilities or municipalities take their entire electric energy supply from the Company.

Territory:

The entire territory served except the Humboldt Division and the Fort Bragg Area.

Rate (A):

Service at 2,200 volts up to and including 25,000 volts.

Demand Charge:

First 50 kw or less of maximum demand	$90.00 per month
Next 150 kw of maximum demand	$1.80 per kw per month
Next 300 kw of maximum demand	1.20 per kw per month
Next 500 kw of maximum demand	.90 per kw per month
Next 1000 kw of maximum demand	.75 per kw per month
All excess kw of maximum demand	.50 per kw per month

Energy Charge (to be added to the Demand Charge):

First 150 kwhr per kw per month	.88¢ per kwhr
Next 150 kwhr per kw per month	.63¢ per kwhr
All over 300 kwhr per kw per month	.50¢ per kwhr

Except that for all energy furnished in excess of 8,000,000 kwh per month, the above energy rates shall be reduced by 0.5 mill per kwh.

EXHIBIT 20

[1850]

Pacific Gas and Electric Company
San Francisco, California

REVISED C.R.C. SHEET No. 1363-E
Canceling Revised C.R.C. Sheet No. 1301-E

SCHEDULE P-31

RESALE POWER

(Optional with Schedule P-6)

Description of Service:

This schedule is applicable, on contract for periods of 5 years, to electric energy supplied at standard voltages of 2200 volts or over, to other electric utilities and to municipalities for distribution and resale where such utilities or municipalities take their entire electric energy supply from the Company.

Territory:

The entire territory served, except the San Joaquin Power, Humboldt and Coast Valleys Divisions, North Bay Division north of Santa Rosa, Shasta Division north of Montgomery Creek, and the territory formerly supplied by the Red River Lumber Company.

Rate (A)

Service at 2200 volts up to and including 25,000 volts.

Demand Charge:

			Accum
First 50 kw. or less of maximum demand	$75 per month	$75	75
Next 150 kw. of maximum demand	$1.50 per kw. per month	225	300
Next 300 kw. of maximum demand	1.00 per kw. per month	300	600
Next 500 kw. of maximum demand	.75 per kw. per month	375	975
Next 1000 kw. of maximum demand	.60 per kw. per month	600	1575
All excess kw. of maximum demand	.40 per kw. per month		

Energy Charge (to be added to the Demand Charge):

First 150 kwh. per kw. per month	7 mills per kwh.
Next 150 kwh. per kw. per month	5 mills per kwh.
All over 300 kwh. per kw. per month	4 mills per kwh.

Except that for all energy furnished in excess of 8,000,000 kwh. per month, the above energy rates shall be reduced by 0.5 mill per kwh.

Minimum Charge:

Applicable when the maximum demand in the current month or in the preceding 11 months has exceeded 25,000 kw.: $1.10 per month per kw. of such maximum demand.

Minimum Charge:

Applicable when the maximum demand in the current month or in the preceding 11 months has exceeded 25,000 kw: $1.40 per month per kw of such maximum demand.

[1834]

Rate (B):

Service at line voltages in excess of 25,000 volts. The rate is the same as that set forth under Rate (A) above with the demand charge decreased by 15% and the energy charge decreased by 3¢, and the minimum charge decreased by 10¢ per kw.

Special Conditions:

(a) Voltage: Service under Rate (A) will be supplied by the Company at standard voltages of 2,200 volts or more up to and including 25,000 volts, as requested by the customer.

Service under Rate (B) will be supplied by the Company at standard line voltages above 25,000 volts as available.

(b) Demand: The maximum demand in any month will be the average kw delivery of the 30-minute interval in which such delivery is greater than in any other 30-minute interval in the month; provided, that if the load is intermittent or subject to violent fluctuations a 5-minute interval may be used. The maximum demand to be used in computing charges under the above rates will be the mean of the actual maximum so determined for the current month and the highest such demand occurring in the year ending with the current month.

(c) Off Peak Demand: Any customer served on this schedule may, upon request, have his demands occurring between 10:30 p.m. and 6:30 a.m. of the following day and on Sundays and legal holidays ignored in determining the billing demand.

(d) Power Factor: The total charge for any month as computed on the above rates will be decreased or increased, respectively, by 0.1% for each 1% that the average power factor of customer's load in that month was greater or less than 85%, such average power factor to be computed (to the nearest whole per cent) from the ratio of lagging kilovolt-ampere-hours to kilowatt-hours consumed in the month, provided, however, that no power factor correction will be made for any month when customer's maximum demand was less than 10% of the highest in the preceding eleven months.

* * * * *

EXCERPTS FROM EXHIBIT 18

[1839]

Decision No. 43972

BEFORE THE

PUBLIC UTILITIES COMMISSION

OF THE STATE OF CALIFORNIA

In the Matter of the Application of PACIFIC GAS AND ELECTRIC COMPANY for an order or orders of the Public Utilities Commission of the State of California (1) authorizing applicant, on an interim basis, to immediately increase its electric rates and charges; and, (2) prescribing and establishing increased definitive electric rates and charges to be collected by applicant.	Application No. 30717

[1840]

At the hearing, Pacific asked that resale service to

[1841]

the Sierra Pacific Power Company also be made // exempt from any rate increase, in that it was also a contract cus-

tomer under similar circumstances to those just referred to. The total increase for the resale group as shown in the above table is $54,000 less than originally estimated by Pacific because of the added exemption of Sierra Pacific Power Company. Pacific's original estimate of total gross revenue increase in the amount of $8,820,000 is correspondingly reduced to $8,766,000.

In justification of the proposed exemption of the 16 resale customers, Pacific states that contracts with each have had the formal approval of the Commission; that the making of such special contracts was compelled largely by competitive conditions; that the contract rates are sufficiently compensatory to meet all direct costs of service; and that the retention of such customers for a term of years is of benefit to the utility and its customers as a whole. The City of Roseville, which now is served under the filed schedule rate, expressed the opinion that it is entitled to exemption from the 6% increase. Pacific stated that a contract similar to those executed with the exempted cities had been offered to the City of Roseville but had not been accepted, although said offer still remains open.

* * * * *

[1842]

In authorizing Pacific to exempt certain resale customers from rate increases, we recognize the right of a utility to meet competition. In approving such special contract rates in the past, we indicated that, if the revenue therefrom should fall below the cost of service, the loss would not be permitted to burden the other classes of customers. Pacific's witness stated that in his opinion the serving of these customers at the contract rates will not impose any burden on other customers, and that the

[1843]

contract rates are more than sufficient // to meet the out-of-pocket costs including depreciation and return on facilities used exclusively for this service. There is no evidence in the record to the contrary. Even were a full 6% increase applied to all within the resale class, the difference in rate of return to Pacific would be negligible and could not bring the rate of return above a fair level on either the staff's or the company's basis of estimate for 1950.

* * * * *

EXHIBIT 19

[1846]

PACIFIC GAS AND ELECTRIC COMPANY
ESTIMATED RATE OF RETURN RECEIVED FROM SERVICE TO
SIERRA PACIFIC POWER COMPANY
YEAR 1952
METHOD REQUESTED BY F.P.C. STAFF

		Calculated with	
		Present Rate	Proposed Rate
1.	Rate Base—Depreciated Cost	$8,489,633	$8,489,633
2.	Revenue	1,228,138	1,570,893
	Cost of Service Including Return at 5.5%		
3.	Return—5.5%	466,930	466,930
4.	Depreciation—Annuity	112,376	112,376
5.	Interest—4%	63,348	63,348
6.	Taxes—Property	198.008	198.008
7.	State Corporation	18,164	18,164
8.	Federal Income (5.5% Return)	218,498	218,498
9.	Operating Costs	633,764	633,764
10.	Total Costs—5.5% Return	$1,711,088	$1,711,088
11.	Excess of Cost over Revenue (lines 10-2)	482,950	140,195
12.	Amount Available for Return and Income Tax—lines 2—(4 + 5 + 6 + 9)	220,642	563,397
13.	Income Tax (based on line 12)	—	160,114
14.	Balance for Return	220,642	403,283
15.	Rate of Return (lines 14 + 1)	2.60%	4.75%

[1847]

PACIFIC GAS AND ELECTRIC COMPANY
ESTIMATED COST OF SERVICE TO SIERRA PACIFIC POWER COMPANY
YEAR 1952
METHOD REQUESTED BY F.P.C. STAFF

	Total to Primary Sub-Input (1)	Allocation to Sierra Pacific 1.43809% (2)	Distribution Facilities Used for Sierra Pacific (3)	Total for Service to Sierra Pacific (4) = (2) + (3)
1. Rate Base—Net Investment Plus Working Capital	$587,252,471	$8,445,219	$44,414	$8,489,633
Costs:				
2. Return—5.5%	32,298,886	464,487	2,443	466,930
3. Depreciation—Annuity	7,766,434	111,688	688	112,376
4. Interest—4%	4,381,633	63,012	336	63,348
5. Taxes—Property	13,726,527	197,400	608	198,008
6. State Corporation	1,256,482	18,069	95	18,164
7. Federal Income—at 5.5% Return	15,114,164	217,355	1,143	218,498
8. Operating Costs	43,934,392	631,816	1,948	633,764
9. Total Costs	$118,478,518	$1,703,827	$ 7,261	$1,711,088

[1848]

PACIFIC GAS AND ELECTRIC COMPANY
ELECTRIC DEPARTMENT CONSOLIDATED SYSTEM INTEGRATED NETWORK
NET INVESTMENT RATE BASE
AVERAGE FOR YEAR 1952
METHOD REQUESTED BY P.U.C. STAFF

		Total to Primary Sub-Input
	Electric Plant in Service	
1.	Intangible	$ 224,345
2.	Tangible (Incl. Electric General and C.U.P.)	696,260,603
3.	Contributions in aid of Construction and Customers Advances	—
4.	Total	$696,283,548
5.	Deduct Depreciation Reserve (Incl. C.U.P. Allocation)	109,540,824
6.	Net Investment	$586,742,724
	Working Capital	
7.	Materials and Supplies	7,306,948
8.	Prepayments	386,654
9.	Cash Requirements (⅛ Expenses less Purchased Power, Depreciation, etc.)	4,151,332
10.	Sub-Total	$ 11,844,934
11.	Deduct 75% of Federal Income Tax (computed at 5.5% return)	11,335,187
12.	Total Working Capital Allowance	$ 509,747
13.	Rate Base—Net Investment plus Working Capital	$587,252,471

[1849]

PACIFIC GAS AND ELECTRIC COMPANY
ELECTRIC DEPARTMENT CONSOLIDATED SYSTEM INTEGRATED NETWORK
WORKING CASH REQUIREMENT
YEAR 1952
METHOD REQUESTED BY F.P.C. STAFF

		Total to Primary Sub-Input
	Annual Costs:	
1.	Maintenance	$ 5,281,036
2.	Natural Gas Fuel	11,797,096
3.	Other Fuel (Incl. Tank Farm)	8,263,324
4.	Water for Power and Steam	604,031
5.	Rents and Headwater Improvements	300,958
6.	Other Operating Expenses	8,914,128
7.	Social Security Taxes	248,131
8.	Administrative and General Expenses (Excl. Franchise Payments)	1,257,587
9.	Franchise Requirements	21,000
10.	Pension Expense (Excl. Past Service)	396,364
11.	Miscellaneous Revenue Credit	(3,872,996)
12.	Total for Calculation of Working Cash Requirement	$33,210,659
13.	Working Cash Requirement: 1/8 of above Total	$ 4,151,332

( ) Denotes red figure.

EXHIBIT 20

(See Opposite)

Energy Charge (to be added to the Demand Charge):

First 150 kwh. per kw. per month	7 mills per kwh.
Next 150 kwh. per kw. per month	5 mills per kwh.
All over 300 kwh. per kw. per month	4 mills per kwh.

Except that for all energy furnished in excess of 8,000,000 kwh. per month, the above energy rates shall be reduced by 0.5 mill per kwh.

Minimum Charge:

Applicable when the maximum demand in the current month or in the preceding 11 months has exceeded 25,000 kw.: $1.10 per month per kw. of such maximum demand.

Rate (B):

Service at line voltages in excess of 25,000 volts.

The rate is the same as that set forth under Rate (A) above with the demand charge decreased by 15 per cent and the energy charge decreased by 8 per cent, and the minimum charge decreased by 10¢ per kw.

Special Conditions:

(a) **Voltage:** Service under Rate (A) will be supplied by the Company at standard voltages of 2200 volts or more up to and including 25,000 volts, as requested by the customer.
Service under Rate (B) will be supplied by the Company at standard line voltages above 25,000 volts as available.

(b) **Demand:** The maximum demand in any month will be the average kw. delivery of the 30 minute interval in which such delivery is greater than in any other 30 minute interval in the month, provided, however, that if the load is intermittent or subject to violent fluctuations a 5 minute interval may be used. The maximum demand to be used in computing charges under the above rates will be the mean of the actual maximum so determined for the current month and the highest such demand occurring in the year ending with the current month.

(c) **Off Peak Demand:** Any customer served on this schedule may, upon request, have his maximum demand measured by a type of meter which records the demand at all hours, in which case demands occurring between 10:30 P.M. and 6:30 A.M. of the following day and on Sundays and legal holidays will be ignored in determining the demand used for computing charges.

(d) **Power Factor:** The total charge for any month as computed on the above rates will be decreased or increased, respectively, by 0.25% (0.2% if energy used in the month exceeded 8,000,000 kwh.) for each 1% that the average power factor of customer's load in that month was greater or less than 85%, such average power factor to be computed (to the nearest whole per cent) from the ratio of lagging kilovolt-ampere-hours to kilowatt-hours consumed in the month, provided, however, that no power factor correction will be made for any month when customer's maximum demand was less than 10% of the highest in the preceding eleven months.

Advice No. 28-E

982e

Issued by
A. Emory Wishon
Vice-President and General Manager

Date Filed July 24, 1946
Effective Sept. 1, 1946
Resolution No. E-532

EXCERPTS FROM EXHIBIT 21

[1851]

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
P. O. BOX 2511
SACRAMENTO 10, CALIFORNIA

REGION II

December 17, 1948

Mr. F. A. Tracy, President,
Sierra Pacific Power Company,
Reno, Nevada.

Dear Mr. Tracy:

Enclosed herewith is a copy of memorandum prepared by Mr. J. P. Elmore of the Power Marketing and Sales Division, this office, subsequent to conference with personnel of your company on December 12, 1946.

Purpose of the memorandum is to briefly summarize for our records the most significant points discussed in the conference. It was prepared by Mr. Elmore largely from memory. If any figures are incorrect or any statements do not, in your opinion, correctly reflect the verbal discussion, your corrections or comments are invited.

As pointed out to you verbally by Mr. Elmore, the major portion of your company's service area lies within Region IV of the Bureau of Reclamation, with Regional Headquarters at Salt Lake City. However, the localities of existing or potential major hydroelectric production which are within economic transmission distance of your

system are mostly within Region I (headquarters at Boise) or Region II (headquarters at Sacramento).

In view of the very rapid load growth in your area, which appears to be leading toward a critical situation in power supply, we plan to bring Mr. Elmore's comments to the attention of our Region I and Region IV offices, with a view to considering what may be done by inter-regional joint action to offer your company additional power. Any information brought out by inter-regional discussion which appears to be pertinent to your problem will be furnished to you promptly.

Mr. Elmore and other members of our technical staff will be available to you for additional discussion upon request.

Sincerely yours,

/s/ Richard L. Boke
Richard L. Boke,
Regional Director

Enclosure (1)

EXCERPTS FROM EXHIBIT 21—(Cont.)

[1852]

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
SACRAMENTO 10, CALIFORNIA
P. O. BOX 2511

REGION II

Memorandum for Regional Power Manager,
(J. Pitts Elmore)

Subject: Power requirements of Sierra Pacific Power Company System, with Respect to Availability of Power from Central Valley Project.

1. On the afternoon of December 12, 1946, the writer participated in a conference with the following personnel of Sierra Pacific Power Company at Reno:

F. A. Tracy, President and General Manager
V. D. Armstrong, Executive Engineer
George Devore, Water Resources Engineer
F. G. Barnett, General Superintendent.

2. During the conference, the following significant information was brought out:

a Present demand on the company's system is approximately 32,000 kilowatts, with growth now occurring at the rate of about 5,000 kilowatts per year.

b Company hydro electric plants can supply up to about 12,000 kilowatts. All plants are stream-flow type.

e Under normal conditions, the balance of about 20,000 kilowatts is purchased from P. G. & E. In case of plant outage during peak-load hours, it would be necessary to either increase purchase of power from P. G. & E. or to curtail service.

d Interconnection with P. G. & E. is over two 60 kv. circuits with capacity of about 15,000 kilowatts each—total line capacity just about sufficient to serve present peak demand on Sierra Pacific System.

e Company engineers have studied possibility of building a steam plant to accommodate load growth, but are of the opinion that present fuel prices are such as to make steam production impractical under existing level of rates for sale of electricity.

f Company has also considered applying for a portion of the Boulder Dam capacity allocated to Nevada, but cannot with its own load justify investment in the necessary 400-mile transmission line.

g Company has also considered possibility of a 115 kv. interconnection from Idaho Power Company's 115 kv. system at Mountain Home, Idaho, to eastern end of Sierra Pacific system near Winnemucca, an estimated transmission distance of about 150 miles.

[1853]

h Company to date has been unsuccessful in securing any commitment from P. G. & E. for future deliveries in excess of the present interconnecting line capacities.

i Company might be interested in purchasing power from the Bureau of Reclamation in the vicinity of either Reno or Winnemucca, or both, if physical facilities were such as to secure adequate service continuity without construction of local steam standby and if contract were so drawn as to adequately protect against withdrawals on short notice to serve customers entitled to higher preference.

j There are two major load centers on the Company system—Reno area and Winnemucca area. Transmission line from Reno to Winnemucca is now loaded to nearly its maximum capacity and Company is declining some applications for service to new mining loads in the Winnemucca area.

k Company officials are of the opinion that the Elko-Lamoille Power Company, serving northeastern Nevada, is also badly in used of additional power.

l To contracting for future purchased power to serve the Reno area, company engineers probably would not look favorably upon delivery over a single transmission circuit (either 115 kv. or 230 kv.) from Shasta Dam, unless service continuity could be supported by (1) standby from P. G. & E. over existing lines. (2) standby over a new interconnection from Idaho to eastern end of Sierra Pacific system, or (3) standby over a second new line from California, traversing a different route from the one used for normal deliveries.

m Company has been informed that engineers from Region 4 of the Bureau of Reclamation have been studying possibility of some small hydro electric power developments on streams near Reno.

EXCERPTS FROM EXHIBIT 21—(Cont.)

[1858]

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
SACRAMENTO 10, CALIFORNIA
P. O. Box 2511

FDB
VDA
F & T

REGION II

January 23, 1947

Mr. F. A. Tracy, President
Sierra Pacific Power Company,
Reno, Nevada.

Dear Mr. Tracy:

Reference is made to our letter dated December 17, 1946, wherein it was stated that consideration would be given to inter-regional joint action by the Bureau of Reclamation toward offering your company a supply of electric power. The following actions have been taken subsequent to date of that letter:

a. On December 24, 1946, the Commissioner of Reclamation designated the Power Branch of this office as negotiating agent for Regions I, L and IV with respect to sales of electricity by the Bureau to your Company.

b. On January 20, 1947, a conference was held, attended by representatives from the Bureau's Regional Power Branches at Boise (Region I), Salt Lake City (Region IV) and Sacramento (Region II). It was agreed that the most practical method for promptly supplying power to your company

from Bureau of Reclamation production facilities is by construction of one or more 115kv circuits to interconnect your system with the Shasta-Sacramento 230 kv line.

During the conference it was brought out that the Bureau's Salt Lake City and Carson City offices are proposing a plan of development in the Lahontan Basin which may eventually offer enough hydroelectric energy to supply all load-growth requirements in the Reno-Winnemucca area. However, it is not anticipated that any energy could be made available from that source prior to 1951 or 1952.

A Possibility of a 230 kv (or higher voltage) transmission line from Idaho to California via Reno at some time in the future was also considered. This is presently regarded as a longrange development item and would have no value to you in meeting an impending power shortage.

[1859]

The shortest route by which a government-owned transmission line could be built to deliver Shasta power to you appears to be from Roseville toward Reno via Donner Summit. This office also has under study a transmission line route from Red Bluff to Doyle or Portola, which could be extended to connect with the Sacramento-Reno line and form a 115 kv loop, serving several smaller loads in addition to that of your company.

As explained orally to you by Mr. Elmore of this office on December 12, the route of this latter transmission line has not been definitely established.

The considerable amount of line construction involved will require some months to plan and accomplish. Prompt resumption of discussions therefore appears to be in order if your company is definitely interested in contracting for

future supply of power from the Bureau of Reclamation. Arrangements for a conference may be made by contacting Mr. J. P. Elmore of our Power Marketing & Sales Division, telephone Sacramento 2-8981, Extension 125.

Sincerely yours,

is/ R. S. CALLAND

R. S. Calland,
Acting Regional Director

CC-Commissioner-Attn: Br. of Pwr. Utilization
(In duplicate)
-Regional Power Manager, Boise
-Regional Power Manager, Salt Lake City

EXCERPTS FROM EXHIBIT 21—(Cont.)

[1861]

CONTRACT FOR
ELECTRIC SERVICE TO COLORADO RIVER COMMISSION
OF NEVADA
PRELIMINARY DRAFT
OCTOBER 21, 1947.

[1862]

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

Contract For
Electric Service to Colorado River Commission of Nevada

INDEX

Article	Description
1-2	Preamble
3	Electric Service to be Furnished
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8	Measurement of Electric Power and Energy
9	Construction, Operation and Maintenance of Connecting Power Systems
10	Facilities to be Provided by the Commission
11	Facilities to be Provided by the United States
12	Power Factor
13	Term of Contract
14	Liability
15	Transfer of Interest in Contract
16	Uncontrollable Forces
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20	Officials Not to Benefit
	Signature Clause
	Rate Schedule R2-F1

[1863]

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

CONTRACT FOR
ELECTRIC SERVICE TO COLORADO RIVER COMMISSION
OF NEVADA

1. THIS CONTRACT, made this ..... day of....., 19...., in pursuance of the Act of Congress approved June 17, 1902 (32 Stat. 388) and acts amendatory thereof or supplementary thereto and particularly pursuant to the Acts of Congress approved August 26, 1937 (50 Stat. 844, 850) entitled "An Act authorizing the construction, repair and preservation of certain public works on rivers and harbors, and for other purposes," as amended, and August 4, 1939 (53 Stat. 1187) entitled "Reclamation Project Act, 1939" all collectively herein styled the Federal Reclamation Law, between THE UNITED STATES OF AMERICA, hereinafter called the United States, represented by the officer executing this contract, his duly appointed successor, or his duly authorized representative, hereinafter called the contracting officer, and the Colorado River Commission of Nevada, a public body duly organized, created and existing under and by virtue of the laws of the State of Nevada, hereinafter called the Commission, its successors and assigns:

WITNESSETH:

2. WHEREAS, the Commission has made application by letter of June 4, 1947, to the United States for allocation of 90,000 kilowatts of electric power from Shasta Dam Power Plant for future delivery in northern Nevada; and

WHEREAS, the United States is willing to furnish such electric power to the Commission in accordance with the terms of this contract;

NOW, THEREFORE, in consideration of the mutual covenants herein set forth, the parties hereto agree as follows:

[1864]

ELECTRIC SERVICE TO BE FURNISHED

3. (a) The United States, under the terms and conditions stipulated herein, will furnish electric service to the Commission from and after the date of initial service as hereinafter defined, at a point or points to be agreed upon by the parties hereto.

(b) The electric energy involved hereunder will be delivered as three-phase, alternating current, at a nominal frequency of sixty (60) cycles per second, and at a nominal delivery voltage to be agreed upon by the parties hereto. The electric energy will be so delivered in amounts which the Commission may from time to time require up to a maximum rate of delivery, hereinafter called the contract rate of delivery, of ..... kilowatts: *Provided*, that if power therefore is available, as conclusively determined by the contracting officer, said contract rate of delivery may be increased at any time by the filing of a request therefor by the Commission with the contracting officer and subsequent approval thereof by the contracting officer. Said request shall include a proper showing of the Commission's need for such increase during the next one-year period. Said increased contract rate of delivery shall not become effective until thirty (30) days after the date of its approval by the contracting officer. The Commission may from time to time, in the absence of objection by

the contracting officer, use energy at rates greater than the contract rate of delivery in effect, but such greater use shall not be deemed to establish in the Commission any right thereto and the Commission shall cease any such greater use whenever and for the periods of time requested by the contracting officer.

(c) The electric service will be furnished continuously except (1) for interruptions or reductions due to uncontrollable forces, as herein defined, and (2) for temporary interruptions or reductions which, in the opinion of the con-

tracting officer, are necessary or desirable for the purpose of maintenance, repairs, replacements, installation of equipment, or investigation and inspection: *Provided*, that the United States, except in case of emergency as determined by the contracting officer, will give the Commission reasonable advance notice of such temporary interruptions or reductions and will remove the cause thereof with diligence.

SCHEDULE OF RATES

4. Beginning with the date of initial service as hereinafter defined and except as specified in other articles of this contract, the Commission shall pay for the electric service furnished hereunder at rates, charges, and upon conditions as follows:

(a) For power and energy metered at each delivery point, separately billed in accordance with Schedule R2-F1 which is attached hereto and made a part hereof,

(b) For a fractional part of a billing period at the beginning or end of service hereunder, the demand charge, the kilowatthour blocks of the energy charge, and the minimum charge shall each be proportionately adjusted in the ratio that the number of hours that electric service is furnished to the Commission in such fractional billing period bears to the total number of hours in the billing period involved.

(c) Should the delivery of electric energy be interrupted or reduced, because of conditions on the power system of the United States, below the contract rate of delivery or below the rate of delivery required by the Commission at the time of such reduction, whichever is the lesser, for a period or periods of one (1) hour or longer in duration each, the total number of hours of curtailed service in any billing period shall be determined by adding the sum of the number

[1866]

of hours of interrupted service to the product of the number of hours of reduced service multiplied by the percentage of said reduction below said contract rate of delivery or below the rate of delivery required by the Commission at the time of such reduction, whichever is the lesser. The demand charge, the kilowatthour blocks of the energy charge, and the minimum charge shall each be proportionately adjusted in the ratio that the total number of hours of such curtailed service as herein determined bears to the total number of hours in the billing period involved. The Commission shall make written claim, within thirty (30) days after receiving the monthly bill, for reduction on account of any curtailment to service, for a period or periods of one (1) hour or longer in duration

each, alleged to have occurred and which is not reflected in such bill. Failure to make such written claim within said thirty (30) day period shall constitute a waiver thereof. All curtailments to service, for any reason whatsoever, which are due to conditions on the power system of the United States, shall be subject to the provisions of this section (c) and the Commission shall be limited in its remedy therefor to the relief granted by this section (c):

RESALE OF ELECTRIC ENERGY

5. (a) With respect to the resale of electric energy it is recognized that the Commission does not now propose to operate an electrical transmission or distribution system itself, but that delivery via systems of private and public agencies hereinafter called its subcontractors will be made to the ultimate consumers. The Commission agrees that it will give preference in its resale of power contracted for hereunder to public agencies and cooperatives in accordance with the provisions of Reclamation Law and will limit the margin between the cost of power under the terms of this contract and the resale price to its subcontractors to no more than a reasonable amount to cover the Com-

[1867]

mission's costs of handling the transactions involved. The Commission further agrees that, to the limit of its legal authority, in its contractual arrangements with its subcontractors, it will include such provisions as the contracting officer may request to insure the following:

(i) That preference in resale of the power contracted for hereunder will be given to public agencies and cooperatives in accordance with the provisions of Reclamation Law,

(ii) That conveyance of power contracted for hereunder will be made, where facilities and equipment capacities permit, on an exchange or other mutually agreeable basis, by subcontractors to public agencies and cooperatives for resale and to Federal agencies for consumptive use, upon request of such agencies and cooperatives.

(iii) That any and all savings accruing to subcontractors as a result of delivery to them of power contracted for hereunder shall be passed on to the ultimate consumers of that power in the form of rate reductions,

(iv) That rates charged by subcontractors shall not be discriminatory between classes of customers or between customers in the same class,

Provisions (iii) and (iv) are recognized as subject to the regulations exercised by any State, Federal or other regulatory body having jurisdiction over the respective subcontractors.

(b) The Commission agrees to submit all proposed contracts, between itself and its subcontractors, to the contracting officer for approval with respect to the requirements of the preceding paragraph (a) in any case where such proposed contracts involve the receipt, transmission or distribution of the power contracted for hereunder. The Commission further agrees that no such contracts will be entered into either before or without approval by the contracting officer.

[1868]

(c) The Commission agrees to furnish monthly reports of disposition and sale of the energy contracted for hereunder, both by itself and by its subcontractors; item-

ized in accordance with the Federal Power Commission Uniform System of Accounts or other standard systems acceptable to the contracting officer.

(d) The United States shall not be obligated to furnish or continue to furnish electric service to the Commission unless the Commission complies fully with the terms of this article at all times. The United States shall have the right to discontinue power service to the Commission for the use of any subcontractor not complying with one or more provisions of its contract with the Commission, whether or not the Commission has requested such discontinuance, and either with or without the Commission's approval. The United States shall give notice not less than thirty (30) days in advance of the date of such discontinuance, in writing to both the Commission and the subcontractor affected, setting forth the reasons for the action. However, non-compliance by one subcontractor shall not preclude deliveries of power to another subcontractor which has complied with all provisions of its contract.

MODIFICATION OF RATES

6. Should the United States, during the term of this contract, modify the rates for furnishing electric service from the project, under terms and conditions similar to those under which electric service is furnished hereunder, as conclusively determined by the contracting officer, it will promptly notify the Commission thereof. The Commission may, if it so elects, receive the advantages of such modified rates, effective as of the date the rates were so modified by the United States. The Commission shall be deemed to have elected to take advantage of the modified rates it does not advise the contracting officer in

writing to the contrary within sixty (60) days after the date of such notification.

[1869]

BILLING & PAYMENTS

7. The United States will submit bills to the Commission on or before the tenth day of each month for electric service furnished hereunder during the preceding month, and payments will be due and payable by the Commission on the first day of the month immediately succeeding the date each bill is submitted. If the Commission fails to pay any bill when due, (a) an interest charge of one per cent (1%) of the amount unpaid shall be added thereto as liquidated damages, and thereafter, as further liquidated damages, an additional interest charge of one-half of one per cent (½%) of the principal sum unpaid shall be added on the first day of each succeeding calendar month until the amount due, including interest, is paid in full, and (b) the United States shall have the right to discontinue furnishing electric service to the Commission and any or all of its subcontractors only after fifteen (15) days' advance written notice of nonpayment of bills, and to refuse to resume same so long as any part of said amount due remains unpaid. Such a discontinuance of electric service will not relieve the Commission of liability for the minimum charge during the time said electric service is so discontinued. If any of the meter tests provided for herein disclose that the error of any meter or meters exceeds two per cent (2%), correction based upon the inaccuracy found shall be made of the records of electric service furnished since the beginning of the monthly billing period immediately preceding the billing period during which the test was made:

Provided, that no correction shall be made for a longer period than such inaccuracy may be determined to have existed. Any correction in billing resulting from such correction in meter records shall be made in the next monthly bill rendered by the United States to the Commission, and such correction when made shall constitute full adjustment of any claim between the parties hereto arising out of such inaccuracy of meters. The rights given herein to the United States shall be in addition to all other

remedies available to the United States, either at law or equity, for the breach of any of the provisions hereof.

MEASUREMENT OF ELECTRIC POWER AND ENERGY

8. The electric power and energy delivered hereunder to the Commission will be measured at each point of delivery as specified herein by metering equipment to be furnished and maintained by the United States. The meter or meters shall be sealed and the seals shall be broken only upon occasions when the meter or meters are to be inspected, tested, or adjusted, and representatives of the Commission shall be afforded reasonable opportunity to be present upon such occasions. The meter or meters shall be tested at least once each year and at any reasonable time upon request therefor by either party hereto. Any metering equipment found to be defective or inaccurate shall be repaired and readjusted or replaced. Should the meter or meters fail to register, the electric power and energy delivered hereunder during such period of failure to register shall, for billing purposes, be estimated from the best information available.

CONSTRUCTION, OPERATION AND MAINTENANCE OF CONNECTING POWER SYSTEMS

9. Contracts between the Commission and its subcontractors shall specify that the subcontractors shall construct, operate, and maintain their power systems in a manner which will not interfere with any service supplied from the power system of the United States. The United States may discontinue furnishing electric service to the Commission or any of its subcontractors if, after reasonable notice by the contracting officer of an unsatisfactory condition on a subcontractors power system which interferes or may interfere with any service supplied from the power system of the United States, the Commission fails, for any reason, to have such changes made as may be necessary to eliminate such unsatisfactory condition. Such a discontinuance of electric service shall not relieve the Commission of

[1871]

liability for the minimum charge provided for herein during the time said electric service is so discontinued at the delivery point concerned. Nothing herein contained shall be construed to render the United States liable for any claims, demands, costs, losses, causes of action, damages, or liability of whatsoever kind of nature arising out of or resulting from the construction, operation, or maintenance of any subcontractor's power systems.

FACILITIES TO BE PROVIDED BY THE COMMISSION

10. The Commission and its subcontractors, for the purposes hereof, will construct, operate, and maintain the electric facilities necessary to receive or carry the power

contracted for hereunder away from the delivery point or points that may be subsequently agreed upon. Such facilities to remain the property of the Commission or its subcontractors.

FACILITIES TO BE PROVIDED BY THE UNITED STATES

11. The United States, for the purpose of rendering electric service hereunder, will construct, operate, and maintain, or will obtain the use of, the electric facilities necessary to deliver the power contracted for hereunder to the delivery point or points that may be subsequently agreed upon. Such facilities constructed by the United States are to remain its property.

POWER FACTOR

12. The United States will not be required to deliver power and energy at any point at a power factor less than ninety per cent (90%) lagging: *Provided*, that delivery at lower power factor will be made when conditions are such, as determined by the contracting officer, that such lower power factor will not prevent the United States from making full use of its available generating and transmission facilities.

TERM OF CONTRACT

13. (a) This contract shall become effective..... and shall remain in effect until midnight of ..... 19.....

[1872]

(b) The date of initial service hereunder hereby is defined as the date upon which the United States is ready to furnish and the Commission is ready to receive electric service hereunder, subject to the following conditions:

(i) Whenever the necessary materials, labor, and funds are available to permit the United States to construct the facilities required for the furnishing of electric service hereunder, or whenever the United States is able to obtain the use of such facilities, as conclusively determined by the contracting officer, the Commission shall be notified in writing of the estimated date the United States will be ready to furnish service.

(ii) Within ninety (90) days after the date of said notice to the Commission, the Commission shall notify the contracting officer in writing of the estimated date upon which the Commission will be ready to receive electric service hereunder.

(iii) If the Commission is not ready to receive service by a date within one hundred and twenty (120) days following the date which the Commission estimated, in accordance with the terms of subdivision (ii) of this article, that it would be ready to receive service or upon the date which the United States is ready to furnish service, whichever date is later, then electric service hereunder shall be deemed to commence on whichever of said dates is the later, and the minimum charge provided herein shall be applicable thereafter.

(iv) In the event the Commission fails to notify the contracting officer, in accordance with the terms of subdivision (ii) of this article, of the estimated date upon which the Commission will be ready to receive electric service, the United States, at its option, may terminate this contract at any time thereafter by written notice thereof to the Commission.

(v) Anything in this contract to the contrary notwithstanding, the United States shall not be obligated to furnish electric service to the Commission hereunder unless and until the construction by the United States of the facilities required for the furnishing of said electric service has been completed, or the use of such facilities has been obtained, as conclusively determined by the contracting officer.

LIABILITY

14. The Commission, its subcontractors, its officers, agents, and employees, or any of them, shall not be liable for any claim for injuries or damages arising from the construction, operation, and maintenance of the facilities of the United States under this contract, unless such claim shall arise out of or result from their negligent act or acts. The United States, its officers, agents, and employees, or any of them, shall not be liable for any claims, demands, costs, losses, causes of action, damages, or liability of whatsoever kind of nature, arising out of or resulting from the construction, operation, and maintenance of the facilities of the Commission or its subcontractors under this contract.

TRANSFER OF INTEREST IN CONTRACT

15. No voluntary transfer of this contract or of the rights of the Commission hereunder shall be made without the written approval of the contracting officer, and any successor or assignee of the rights of the Commission, whether by voluntary transfer, judicial sale, foreclosure

sale, or otherwise, shall be subject to all the provisions and conditions of this contract to the same extent as though such successor or assignee were the original contractor hereunder: *Provided*, that the execution of a mortgage or trust deed, or judicial or foreclosure sales made thereunder, shall not be deemed voluntary transfers within the meaning of this article.

[1874]

UNCONTROLLABLE FORCES

16. Neither party shall be considered to be in default in respect to any obligation hereunder, if prevented from fulfilling such obligation by reason of uncontrollable forces, the term uncontrollable forces being deemed for the purposes of this contract to mean any cause beyond the control of the party affected, including, but not limited to, inadequacy of water for the generation of the electric power and energy herein contracted for as conclusively determined by the contracting officer, failure of facilities, flood, earthquake, storm, lightning, fire, epidemic, war, riot, civil disturbance, labor disturbance, sabotage, and restraint by court or public authority, which by exercise of due diligence and foresight such party could not reasonably have been expected to avoid. Either party rendered unable to fulfill any obligation by reason of uncontrollable forces shall exercise due diligence to remove such inability with all reasonable dispatch.

WAIVERS

17. Any waiver at any time by either party hereto of its rights with respect to a default or any other matter arising in connection with this contract shall not be deemed

to be a waiver with respect to any subsequent default or matter.

NOTICES

18. Any notice, demand or request required or authorized by this contract shall be deemed properly given if mailed, postage prepaid, to the Regional Director, Bureau of Reclamation, P. O. Box 2511, Sacramento 10, California, on behalf of the United States, except where otherwise herein specifically provided, and to ....., on behalf of the Commission. The designation of the person to be notified or the address of such person may be changed at any time by similar notice.

[1875]

CONTINGENT UPON APPROPRIATIONS

19. Where the operations of this contract extend beyond the current fiscal year, the contract is made contingent upon Congress making the necessary appropriation for expenditures hereunder after such current year shall have expired. In case such appropriation as may be necessary to carry out this contract is not made, the Commission hereby releases the United States from all liability due to the failure of Congress to make such appropriation.

20. No Member of or Delegate to Congress or Resident Commission shall be admitted to any share or part of this contract or to any benefit that may arise herefrom, but this restriction shall not be construed to extend to this contract if made with a corporation or company for its general benefit.

IN WITNESS WHEREOF, the parties hereto have caused this contract to be executed the day and year first above written.

THE UNITED STATES OF AMERICA

By .....

COLORADO RIVER COMMISSION OF NEVADA

By .....

Title .....

RATIFIED AND APPROVED

.....

Governor of the State of Nevada

Attest

.....

EXCERPTS FROM EXHIBIT 21—(Cont.)

[1876]

Schedule R2-F1

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
REGION 11

Central Valley Project, California.

INTERIM SCHEDULE OF RATES FOR
WHOLESALE FIRM POWER SERVICE

Effective:

March 6, 1945.

Available:

In the area served by the Central Valley Project.

Applicable:

To wholesale power customers for light and power service supplied through one meter at one point of delivery. Not applicable to standby or auxiliary service or to the sale of dump energy.

Character and Conditions of Service:

Alternating current, sixty cycles, three-phase, normally delivered and metered at the low-voltage side of substation.

Monthly Rate:

DEMAND CHARGE: $0.75 per kilowatt of billing demand.

ENERGY CHARGE: First 130 kilowatthours per kilowatt of billing demand at 4 mills per kilowatthour.
Next 130 kilowatthours per kilowatt of billing demand at 3 mills per kilowatthour.
Balance of energy used each month at 2 mills per kilowatthour.

Minimum Bill:

$1.00 per month per kilowatt of the larger of:

(a) billing demand for the current month.
(b) contract rate of delivery.
(c) 75 per cent of the highest billing demand for the preceding eleven months exclusive of irrigation and drainage pumping loads.

EXCERPTS FROM EXHIBIT 23

[1905]

EXTRACT FROM TRANSCRIPT OF PROCEEDINGS BEFORE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

IN THE MATTER OF
PACIFIC GAS AND ELECTRIC COMPANY
APPLICATION No. 32589

JANUARY 7, 1952

[1906]

San Francisco, Calif., January 7, 1951[sic]:
10:00 o'clock A. M.

Commissioner Huls: The Commission will be in order. This is the time and place set for the hearing of Application No. 32589, the Application of the Pacific Gas and Electric Company for an increase in electric rates and more particularly for the presentation by the Sierra-Pacific Power Company. Is there anything preliminary before we start with that presentation?

Mr. Du Val: Nothing except to say, Mr. Commissioner, that if time is available today I have a few exhibits I would like to present after the Sierra-Pacific Power Company completes their presentation.

Commissioner Huls: Those are in response to requests for certain information?

Mr. Du Val: In part, bringing up to date 2 exhibits which will be very short.

Commissioner Huls: Very well. If time affords, we will be glad to have them. You may proceed. I am sorry, I have forgotten your name?

Mr. Orrick: William H. Orrick, Jr. I would like to call Mr. Tracy.

Commissioner Huls: Mr. Tracy.

FRANK TRACY, a witness called on behalf of the Sierra-Pacific Power Company, after having been first duly sworn, testified as follows:

Direct Examination

* * * * *

[1923]

Q. Did you, at that time, consider obtaining power from any other sources? A. In looking forward to possibly the beginning of '49 when we would be in need of still additional power we began, at that time, to look around to locate sources of additional power. We looked at the possibility of power from the Idaho Power Company, possibility of getting Boulder Dam Power in directly into northern Nevada by way of California Electric Power Company's system, also getting that power into Nevada by way of California Edison Company and the P. G. & E. Company's systems, purchasing power from the Reclamation Bureau from one of their lines, from their Shasta Plant, and even to the point of building a power station of our own on the West Walker River, studies of which had been made several years, but we found that that particular develop-

[1924]

ment was not feasible at that time.

* * * * *

[1938]

Cross Examination

Mr. Duval: . . .

. . . . .

[1941]

Q. Now, do you have any question in your own mind as to the right of this Commission to change or modify the terms of contracts made between a public utility and one of its customers? A. It is my understanding that the Commission has jurisdiction over rates, yes, sir.

Mr. Orrick: I didn't hear that answer. Would you read that back, please? (Record read.)

Mr. Duval: In having jurisdiction over rates, it can increase or decrease the rates, would you agree with that?

A. I presume that.

Q. Now, the rates that you charge your customers, Mr. Tracy — that is, the Sierra-Pacific Power Company — is subject to the jurisdiction, as you said, of this Commission and also the Nevada Commission, is that correct? A. That is right.

[1942]

Q. Have you ever made an application to either of those Commissions for an increase in rates? A. Not to my knowledge. Not in my day, anyway.

Q. Do you know whether the Sierra Pacific Power Company ever did? A. I wouldn't want to answer way back on that because I don't recall the history.

Q. It would be possible for the Sierra Company, would

it not, to apply to the Nevada Commission and/or the California Commission for an increase in the rates charged its customers, if you felt the facts warranted such an application? A. I believe so, yes, sir.

Q. As an operator of a —as the President of the Sierra Pacific Power Company and as the head—as the Operating Head of that Company and having a rather long experience in the public utility business, would you agree with the statement that a public utility should be entitled to charge rates which will accord it a fair and reasonable return on its investment? A. I think that is a fact.

Q. And if it is necessary to increase existing rates to accord such a return would you think that that was a proper action for a utility to take? A. That is the proper way to get a proper return, yes, sir.

• • • • •

[1949]

Q. While the Commissioner has stated that the record in the contract proceedings contains the support for the contract or purportedly it did, you made the statement that you made this

[1950]

15 year contract because you wanted to have assurance of power supply and that it was the best source of power at reasonable rates. Is it not a fact, Mr. Tracy, that Pacific Gas and Electric Company was insisting on a 15 year contract in order to protect it in a very large investment that it had to make in facilities in order to bring power to the summit to supply to the Sierra Pacific Power Company? A. I think that works both ways. Yes, our company wished to have a firm contract too to cover our investment.

• • • • •

EXHIBIT 26

[1978]

AIR MAIL January 17, 1947.

Mr. F. A. Tracy,
c/o Mr. A. L. Tracy,
Cherryfield, Maine.

Dear Frank:

I sent you a telegram Wednesday night asking you to call up Thursday afternoon in regard to Malone's plan of securing Shasta power. The Western Union advises today that they have no record that the telegram had been delivered, however, that a copy had been sent on to you at Maine. Since sending you the telegram Ernest Brown has phoned me again and it now appears that since his conversation with Molly last night, that the rush of the matter is over and while he would like to proceed with the matter, a delay of a month or so will not be detrimental.

Molly phoned Ernest Brown Tuesday night and wanted him to make an appointment so that he could talk with me Thursday in order to get some information and data in regard to the power situation. I thought that you might like to contact him in Washington and that was the reason why I sent you the wire. However, if you still wish to contact him you could do so on your way back.

Molly's present plan was to make arrangements with the Bureau of Reclamation to exchange some of Nevada's Boulder or Davis power for Shasta power and have the Bureau deliver the Shasta power to the P.G.&E. and then for the P.G.&E. to deliver an equivalent amount of power to the Sierra Pacific Power Company at Donner Summit.

He stated that he felt that he could get the P.G.&E. to deliver this power to us. You will recall that Molly had a conference with Anderson and Wishon just before he left for Washington and I understand that he told them that it was necessary that we get cheaper power in order to permit the further development of industry and mines in northern Nevada. It may be that there is some understanding between these people. You will recall that I told you that Wishon is to resign sometime this summer and that Anderson is to take over his work. This was confirmed yesterday by Walter Smith of G.E.

It occurred to me that if the Bureau of Reclamation entered into such an agreement that they would want to deal through the Colorado Power Commission so I phoned A. M. Smith Thursday morning and he took the matter up with Governor Pittman and said that if such arrangement could be made that it would meet with their approval and that they thought it was a fine idea. They further stated that they would have no objection to Molly taking the matter up with the Bureau of Reclamation at Washington.

In talking with Mr. Smith he said that the Commission had an application for 200,000,000 K.W.H. on file with the Bureau for Davis power and that he thought it would be advantageous to exchange this power or a part of their Boulder power for Shasta power if such arrangements could be concluded. He also stated that he was to attend a

[1979]

meeting in Los Angeles // on January 21 in regard to the Bureau taking over the operation of all the power units at Boulder and that McPhail would be at the meeting so he would have an opportunity to discuss the matter with

McPhail. I told him that as to whether he would be willing to go through with the plan would depend upon the conditions attached to it and the price, and possibly other things that I could not recall at the time. I also stated that if we used Shasta power it would have to be with the assurance that we were going to receive prime power in order to protect the P.G.&E. in their delivery to us.

In reviewing the matter, the following points seem to be more or less apparent:

1. If the Bureau made a deal with our Colorado Commission, it should be rated as a No. 1 Priority.
2. The Bureau might want us to supply the Plumas R.E.A. and Doyle with some of this power.
3. P.G.&E., among other things, might be glad to see a large block of Shasta power tied up out of California as its Shasta contract expires in January 1949.
4. If the P.G.&E. should charge us $75,000 a year for the use of the transmission lines which is provided as a minimum payment in the contract, it would appear that the power costs might not exceed five mills per kilowatt-hour as against the present cost of about eight and one-half mills.
5. Lower power costs might have to be passed on to industrial consumers.

I think that the situation requires considerable thought but that it might work out to our advantage. If you think that you want to talk to Molly, he has an office in the Senate Office Building and at present is staying at the Mayflower Hotel. Otherwise, I now think the matter can wait until you return. As I told you, I am going down

to Arizona during the first part of February but expect to be back around the 14th.

I talked with Mrs. Tracy last night and she said to tell you that she and Betty are getting along O.K. and that her foot was getting better.

The last three mornings we have had a temperature of 15° below at Boca and about three or four degrees above in Reno. The ice in the river caused some trouble at the power plants but I do not think the generation dropped much below 7,000. We are drawing 435 c.f.s. out

[1980]

of // Boca and it is keeping the ice clear for Farad and Fleish with some trouble at Verdi. There is nothing new at the office that I know of.

With kindest regards, I remain

Yours very truly,

G. D.

EXCERPTS FROM EXHIBIT 27

[1981]

EXTRACTS FROM MINUTES OF
PRESIDENT'S ADVISORY COMMITTEE
PACIFIC GAS AND ELECTRIC COMPANY

Items Relating to Sierra
Pacific Service and Contracts

January 1, 1946 to June 30, 1948

* * * * *

December 9, 1946

Sierra Pacific Power Company,
Service to:

Mr. Moulton described recommended plan for increasing the capacity to supply the Sierra Pacific Power Company by changing the wire on the existing 60 Kv. circuits to 4/0 and stated that the growth of load will justify the estimated expenditure of $225,000 at the present rate. Mr. Wishon said he is approving this plan.

January 6, 1947

Sierra Pacific Power Company,
Service to:

Mr. Fisher reported that the Sierra Pacific Power Company had agreed to increase the conductor size of one of its 60 Kv. circuits from Summit to Washoe and provide capacitors, both of these being a requirement of our proposal to increase the circuit capacity from Drum to Summit. Mr. Fisher stated the matter of providing still additional capacity will be taken up in the near future.

[1982]

March 11, 1947

Sierra Pacific Power Company,
Service to:

Mr. Euler described recent meeting between engineers of this company and Sierra Pacific Power Company in which plans were made for coordinating the increase in copper on the two existing 60 Kv. connecting lines.

April 28, 1947

Sierra Pacific Power Company,
Service to:

Mr. Anderson reviewed a conference held last week with Mr. Frank A. Tracy, President, Sierra Pacific Power Company. Our plans for supplying additional power were briefly discussed. Mr. Tracy stated that he is reviewing our latest proposal and will reply to it within a short time.

Considerable attention was given to a proposal made to Mr. Tracy by the Colorado River Commission of Nevada, that the California companies and the Los Angeles Power Bureau make a united effort to bring Boulder power or its equivalent into northern Nevada.

Mr. Anderson said he pointed out the difficulties and the apparent impossibility of such a plan, but agreed to have it discussed with representatives of the Edison Company and the Power Bureau.

June 16, 1947

Central Valley Project:
Senate Appropriations Committee:
Appropriations Bill:
Bureau of Reclamation Request for Data on Company's Electric System:
Colorado River Commission Act:
Sierra Pacific Power Company:

Mr. Anderson described Bureau of Reclamation press release stating it has received application from the Nevada-Colorado River Authority for a block of Central Valley power to be used in Nevada. Mr. Fisher stated that Mr. Tracy of Sierra Pacific Power Company stated he could not proceed with discussion of augmenting our delivery capacity to Sierra Pacific until the Central Valley situation is clarified. It was agreed that we can take no further action until Mr. Tracy takes action on the proposal now in his hands.

June 30, 1947

Sierra Pacific Power Company,
Service to:

Mr. Wishon reported on his discussions while in the east with representatives of Stone & Webster regarding the delay of the Sierra Pacific Power Company in acting on our proposals to supply it with additional power. Mr. Black asked that the matter be reviewed and if the record is not clear that delay is being caused entirely by the Sierra Pacific Company that another follow up letter be sent.

[1983]

July 14, 1947

Central Valley Project:
Bureau of Reclamation
Contra Costa Pumps:
Shasta Plant:
Colorado River Commission:
Sierra Pacific Power Company:
Power Deliveries from Shasta Dam:

Mr. Black read telegram from Senator Pat McCarran of Nevada asking for a meeting about the middle of August with him and the Nevada Colorado River Commission to discuss the possibility of obtaining 20,000 Kw. of Central Valley Power for northwestern Nevada. Mr. Black will advise that company representatives will be available for the suggested meeting.

Mr. Black requested Mr. Sutherland to send another follow-up on August 1 to the Sierra Pacific Power Company regarding the importance of its taking action on our proposals to supply it with additional power.

August 4, 1947

Sierra Pacific Power Company

Mr. Euler stated that the Sierra Pacific Power Company had been authorized to issue $975,000 of bonds by the California Public Utilities Commission. Mr. Sutherland reported he had sent another follow-up letter to Mr. Tracy urging early decision on our proposal regarding additional capacity. Mr. Sutherland said he understands, however, that Mr. Tracy will not act until negotiations of the Nevada Colorado River Commission involving Hoover Dam power or Central Valley power are further advanced.

August 18, 1947

Central Valley Project:
Bureau of Reclamation:
Request for Power by Navy
Colorado River Commission Act:
Sierra Pacific Power Company:
Flood Control Projects:
Power Deliveries from Shasta Dam:

Mr. Black read letter from the Bureau of Reclamation stating that the Colorado River Commission of Nevada had requested the reservation of a substantial increment of Shasta capacity for supplying future load growth in northwestern Nevada. The letter asks whether the company will supply Nevada distributors on an exchange basis and suggests an informal meeting with Mr. Creim prior to statement of company policy. Mr. Coghlan is to discuss form of reply with Mr. Gerdes, and Mr. Wishon is to discuss Sierra Pacific Power Company participation with Stone & Webster executives.

August 25, 1947

Sierra Pacific Power Company:

Mr. Wishon reported he had discussed the failure of Sierra Pacific Power Company to act on our proposal to supply it with additional power with Mr. Bigelow who

had promised // in turn to take it up with Mr. Branch, President of Stone & Webster Engineering Company.

September 22, 1947

Sierra Pacific Power Company:
Service to:

Mr. Wishon stated he had just received a telephone call from Mr. Tracy of Sierra Pacific Power Company saying

that he and Mr. McGinnis would like to meet with him in San Francisco next October 6, 1947 to discuss our proposal to supply additional power to the Sierra Pacific Company.

September 29, 1947

Sierra Pacific Power Company:
Service to:

Mr. Black asked Mr. Wishon to talk to Mr. Sutherland in advance of his meeting with Mr. MacInnis of Stone & Webster and Mr. Tracy of Sierra Pacific Power Company on October 6 (erroneously reported in last week's minutes as September 29) and let Mr. Sutherland carry the burden of the negotiations.

October 6, 1947

Sierra Pacific Power Company:
Service to:

Mr. Wishon reported upon a conference with Mr. Tracy and Mr. McGinnis, representing the Sierra Pacific Power Company, concerning our proposal to supply additional power to the Sierra Company.

He stated that the Sierra Company is not prepared to continue negotiations at this time; that there is local political pressure to bring Shasta power into Nevada, which hampers the Company's negotiations; and that the Sierra Company cannot afford to offend Shasta Power advocates in Nevada.

Mr. Black inquired if consideration had been given to allowing the Sierra Company the benefit of our P-31 rate or its equivalent.

Mr. Sutherland said the rate had not been considered applicable because of the special contract terms and investment made to serve the Sierra Company. He will

study the application of P-31 rate and make a comparison of the cost of Shasta power delivered at the summit or at Reno, and report to Mr. Black.

November 24, 1947

Sierra Pacific Power Company:
Service to:

Mr. Black inquired as to status of negotiations with Sierra Pacific Power Company for the delivery of additional power to it. Mr. Sutherland stated that Mr. Tracy had asked for the elimination of the charge of $30,000 for standby which we could not concede. A further endeavor will be made to see if agreement cannot be reached along other lines.

December 1, 1947

Sierra Pacific Power Company:
Service to:

Mr. Sutherland stated he had prepared a suggested

proposal for augmenting our power service to the Sierra Pacific Power Company which he would submit to Mr. Euler. Mr. Black stated he hoped agreement with Sierra Pacific could be concluded by the middle of December.

December 15, 1947

Sierra Pacific Power Company:
Service to:

Mr. Euler reviewed terms of power contract proposed to be offered Sierra Pacific Power Company. The con-

tract provides for a term of fifteen years, the construction of a 110 Kv. line from Drum to Summit, payment to Sierra Pacific of fixed charges not to exceed $2,500 per month on a 110/60 Kv. stepdown substation to be constructed by Sierra near Truckee, and payment for power delivered at a rate equal to Schedule P-31. In the event a second 110 Kv. line is hereafter found necessary, the term will be extended for fifteen years from the completion of such line.

December 29, 1947

Sierra Pacific Power Company:
Service to:

Mr. Sutherland reported that Mr. Tracy will meet with him on December 30 regarding several changes Mr. Tracy wants in the power supply contract offered Sierra Pacific by Pacific Gas and Electric Company. The most important of the requested changes is a provision to permit the contract to be cancelled in case Pacific Gas and Electric and Southern California Edison agree to transport Boulder power to northwestern Nevada.

January 19, 1948

Sierra Pacific Power Company:
Service to:

Mr. Sutherland stated that the proposed contract for power supply to Sierra Pacific Power Company with clarifying modifications had been mailed to Mr. Tracy on January 13. Mr. Tracy is still seeking further modifications which would permit it to purchase power from any future federal power developments in northern Nevada and to share in any saving in power costs that might result if an arrangement to transfer Boulder power is worked out. A Reno news release, the source of which

Mr. Sutherland did not know, described the principal features of the contract and gives Senator McCarran credit for bringing the parties together.

March 4, 1948

Sierra Pacific Power Company:
Service to:

Mr. Sutherland reported that contract for the sale of power to Sierra Pacific Power Company had been signed. This contract is for an initial period of fifteen years with further extensions in the event a second 110 Kv. line is constructed.

[1986]

April 5, 1948

Sierra Pacific Power Company:
Service to:

Mr. Smalley stated that a representative of Sierra Pacific Power Company had inquired as to when we plan to construct the 110 Kv. line required by the recently executed power contract, saying that Sierra expects a 45,000 Kw. load after the curtailment is lifted. Line work will not be undertaken until after the Commission approves the contract. Estimated completion date specified in the contract is October 1, 1949.

April 12, 1948

Sierra Pacific Power Company:
Service to:

Mr. Gerdes stated that the Public Utilities Commission had set a hearing for April 15 on the application for approval of the power sales contract recently made with Sierra Pacific Power Company.

April 19, 1948

Sierra Pacific Power Company:
Service to:

Mr. Sutherland reported that at the Commission hearing on application for approval of our power contract with Sierra Pacific Power Company, representatives of Reno and other Nevada cities objected to a fifteen year contract on the grounds that it might prevent the obtaining of Central Valley power. The Commission has given them until May 3 to submit any further evidence they may wish to.

April 28, 1948

Sierra Pacific Power Company:
Service to:

Mr. Sutherland stated that Mr. Tracy of Sierra Pacific Company had told him that objections to the power supply contract had simmered down to suggestions that Sierra Pacific should be permitted to construct projects of its own during the fifteen year contract period. Mr. Tracy has told those making these suggestions that if this should become desirable he thinks it can be worked out with the Pacific Gas and Electric Company. It is expected that little if anything will be presented at the Public Utilities Commission hearing on May 3.

* * * * *

EXHIBIT 29

[1989]

F. A. Tracy,
Geo. G. Devore.

January 6, 1947

Shasta Power
U. S. Bureau of Reclamation

Mr. J. P. Elmore conferred with us on December 12, 1946 regarding the possibility of building a 115,000 volt line to Susanville or Beckwourth from Red Bluff and supplying us with a part of our power requirements.

Mr. Elmore stated:

I. That they had installed at Shasta 150,000 K.W. of generating capacity.

II. That they planned to install 225,000 K.W. additional capacity at Shasta and 25,000 K.W. at Keswick.

III. That they estimated they would have 350,000 K.W. firm capacity at 60% L.F.

IV. That their priority customers were as follows:

1. Bureau pumping—80 to 120,000 K.W.
2. U. S. Agencies wholesale delivery 40—50,000 K.W.
3. Public Agency Resale.
4. Private Industry and Utilities.

V. That they also had authorized about 100,000 K.W. additional capacity at Pine Flat and Folsom Reservoirs.

VI. That they had prospective customers on this line as follows:

Plumas R.E.A.	5,000 (- or -) K.W.
Ordinance Depot	1,000 K.W.
Mineral Park	1,000 "
Westwood	?
California-Pacific	?

VII. That Pacific Gas & Electric Co. contract on Shasta power expired December 1949 or two years after war—Jan. 1, 1949.

VIII. Attached hereto are the rates at which service was offered.

It appears that the Bureau rates are about 66% of our P. G. & E. rate.

There appears at least two items that need consideration in accepting such service— (a) Possibility Congress might not provide construction funds; (b) Danger of Bureau selling power to Reno or Sparks.

[1990]

This source of power should be kept in mind in negotiating a new contract with the Pacific Gas & Electric Company for a third line and more power, and I think it is worth some study before we start the P.G. & E. negotiations. In fact, the P.G. & E. may want us to take power from this source if they are sincere in what they say about the desirability of our load.

EXHIBIT 30

[1991]

F. A. TRACY,
GEO. G. DEVORE.

December 16, 1947.

PRELIMINARY OBJECTIONS TO PROPOSED (PRELIMINARY) CONTRACT BETWEEN U. S. DEPARTMENT OF INTERIOR AND COLORADO RIVER COMMISSION OF NEVADA

1. Under proposed contract Reclamation Bureau would not be able to deliver power over new line in time to meet power demand in excess of existing facilities.
2. If single line is constructed, standby power would have to be obtained from P. G. & E. and the cost thereof added to Bureau's power cost.
3. Colorado River Commission would be required to give preference of resale of power to public agencies and cooperatives.
4. Subcontractors would be required to wheel power to public agencies, authorities, and Federal agencies if Commission had power to make such requirements effective.
5. Until a loop line was built by the Bureau, it would be necessary to purchase standby power from the P. G. & E.
6. Rates are not firm.
7. Bureau attempts to force Colorado River Commission to promote public ownership.

It is understood that the Reclamation Bureau proposes to have its first line constructed in 1952 and a second line constructed in 1956.

a. If we do not make a new contract with P. G. & E. now, doubt if we can require them to build new line in 1949 and without new line in 1949 or 1950, we will not be able to supply new load up to 1952 with present lines.

b. One Bureau line in 1952 would hardly carry 1952 load and would require standby from the P. G. & E.

c. Two Bureau lines in 1956 would carry load to 1962 but would not provide standby during such period.

The following tabulation shows the approximate estimated cost of power during three critical periods under P. G. & E. Schedule P-31 without standby charge and under Reclamation Bureau Schedule R2-F1 hereto attached.

[1992]

DECEMBER 16, 1947.

ESTIMATED COST PER K.W.H.

	Present P.G.&E. Contract	P.G.&E. P-31	U.S.R.B. R2-F1
1946-47 Oct. to Sept.	7.6 Mills	6.6 Mills	5.69 Mills * #
1952		5.95 "	4.92 " * #
1962		5.34 "	4.74 " *

* Metering at two places as mentioned in Reclamation Bureau contract would increase cost of both energy and demand charges.

Contract rate of delivery (rates) minimum monthly would increase cost in 1946-47 to approximately 17.5 mills and in 1952 to approximately 5.8 mills. No increase cost in 1962. Appears necessary to contract for 90,000 K.W. in order to be sure of power to 1962. Above rate of 17.5 mills in 1946-47 would not apply as contract would start in 1952.

EXHIBIT 31

[1993]

MEMORANDUM

To F. A. Tracy.
From Geo. G. Devore.

December 23, 1947.

Truckee River Development
By U. S. Army Engineers

According to recent information obtained from the U. S. Army Engineers this report is being held up and not filed with their Washington office until preliminary approval is obtained from local interests.

A committee has been appointed by the State Engineer of Nevada to report on the feasibility of this project and of the net benefits resulting to the Nevada interests. Little progress has been made by the committee at this date.

EXHIBIT 32

[1994]

FEBRUARY 4, 1948.

1947 Power Cost under present P. G. & E. Contract	7.6	Mills	per	Kwh.
Estimated power cost under proposed contract with P. G. & E. Co.	7.2	"	"	"
Estimated power cost with present load under Reclamation Bureau contract with min. chg.	14.5	"	"	"
Estimated cost of power under proposed P. G. & E. Co. contract in 1952	6.1	"	"	"
Estimated power cost under proposed Reclamation Bureau contract in 1952	5.8	"	"	"
Estimated cost of power under proposed P. G. & E. contract in 1962	5.6	"	"	"
Estimated cost of power in 1962 under proposed Reclamation Bureau contract	4.8	"	"	"

One of the principal objections to Reclamation Bureau service is that the earliest time when they would have power available with one line would be in 1951 or 1952. They anticipate that a second line would be available in 1956, subject to Congressional appropriation.

If we were to contract with the Bureau for power, then the P. G. & E. would not be willing to construct a third line which can be made available in the fall of 1949.

The capacity of the present two 60 K.V. lines from the P. G. & E. with enlarged copper is estimated at 30,000 K.W. or a possible 36,000 with poor voltage service. Our estimated requirements in addition to the full capacity of our own plants in 1951, is 46,500 K.W. or 52,000 in 1952. This would indicate that if we contract with the Bureau and the P. G. & E. does not put in a third line; that we

would have to dump 10,000 to 15,000 K.W. of load over peak in 1951 and 1952.

[1995]

Furthermore, if we contract with the Reclamation Bureau and they completed their first line in 1952 and the second line in 1956 and should anything happen to put the first line out of commission prior to 1956, then we would have to dump about 85% of our load over peak, and a lesser amount during the balance of the day. The alternate to this condition would be to purchase standby from the P. G. & E. to the capacity of their two present lines at a cost of about $400,000 per year which then would only necessitate the dumping of approximately one-third of our load over peak. This, however, would increase the cost of power so that the Reclamation Bureau cost would exceed that under the proposed P. G. & E. contract.

There are numerous objections to the Reclamation Bureau proposed contract, some of which might be eliminated by negotiations but we are of the opinion that the contract would be less desirable than the one proposed by the P. G. & E. Co., hence we believe that until the Reclamation Bureau can have more than one source of power and more than one carrier, that we should not consider taking their service for our customers as the resulting service that we would be able to give our customers would not be as good as under P. G. & E. service and that the costs of Reclamation Bureau service are not sufficiently less, if less at all, than the proposed P. G. & E. rates to justify accepting their service.

EXHIBIT 33

[1996]

COMPARISON OF RATES UNDER OLD EXISTING CONTRACT AND PROPOSED NEW CONTRACT BETWEEN PACIFIC GAS AND ELECTRIC COMPANY AND SIERRA PACIFIC POWER COMPANY

Year 1947	KWH	KW Demand	Bill Under Previously Existing Contract	Bill Under Proposed New Contract Rate
January	5,965,200	22,080	$ 47,407.36	$ 41,963.24
February	5,497,330	21,000	44,341.40	39,451.07
March	5,688,660	19,560	43,784.10	39,907.07
April	4,432,580	17,330	36,197.32	33,366.35
May	4,424,500	16,620	35,478.95	33,113.03
June	6,918,241	17,520	47,146.21	44,147.73
July	8,341,808	20,160	55,998.12	50,974.08
August	8,222,960	21,600	56,871.62	51,227.14
September	8,207,120	22,765	57,927.06	51,896.30
October	8,040,000	25,920	60,089.84	54,060.81
November	9,324,000	28,860	68,480.91	60,918.57
December	10,143,120	29,520	72,663.98	64,206.32
Totals	85,205,519		$626,386.87	$565,231.71
Average per KWH			7.36 mills	6.634 mills

NOTE: Cost of Standby not included.

EXHIBIT 34

[1997]

REASONS WHY THE P. G. & E. CONTRACT IS MORE DESIRABLE THAN THE PROPOSED CONTRACT BETWEEN THE U. S. BUREAU OF RECLAMATION AND THE COLORADO RIVER COMMISSION

It is conceded that the Reclamation Bureau power costs over the fifteen year period of the contract are .55 mills cheaper per kilowatt-hour than the P. G. & E. without standby until 2 Bureau lines are constructed—and based on one Reservoir.

The disadvantages of the Reclamation Bureau contract are:

1. The earliest date that we have any assurance from the Reclamation Bureau for the completion of a connecting line (subject to appropriations from Congress) would be 1951 or 1952. If our new load continues to increase at the present rate, we would not be able to take on additional load during 1950, 1951 or 1952 without a third line connecting with the P. G. & E. system. We cannot expect the P. G. & E. to construct a third line unless we renegotiate a new contract with P. G. & E. Hence we would be subject to a shortage of power in our system of an amount more than the recent brown-out over a period of at least two years if we waited for the Reclamation Bureau line. An additional line from the P. G. & E. system can be constructed by October 1, 1949.

2. If we accepted service over the Reclamation Bureau single line we would have to purchase standby power from the P. G. & E. which would increase the cost of purchased

[1998]

power materially or we would have to take a chance of a blackout in case of failure of the Bureau line or any of its supplementary equipment and this condition would exist until a second line could be connected with the Bureau which we have been advised would be about two-four years after the initial line was constructed (subject to appropriations from Congress). After the second Bureau line was constructed our demand would be so large on the Shasta plant that if one of the lines was put out of service, the remaining line would not be able to carry the entire load and certain customers would have to be restricted in their service until both lines were available for service.

3. In accepting service under the Reclamation Bureau contract we would be dependent upon the power plants at Shasta and Keswick, both supplied by water from Shasta Reservoir. There is no assurance in the future that there may not be a shortage of water in Shasta Reservoir and if we depend upon this hydro source of power alone, we could very easily be in a worse condition than we were under the recent brownout, as the Reclamation Bureau contract provides that they can restrict service on short notice without recourse on our part except a rebate for a part of the power cost of which we would be deprived.

[1999]

4. The amount of prime power available from Shasta is a debatable question of which I am not informed sufficiently to give a competent answer. However, it is well known that the prime power is less than the installed capacity—furthermore the requirements of the U. S. is a

No. 1 priority on Shasta power while the Colorado Commission would have a No. 2 priority and the U. S. requirements must be supplied out of the prime power before the Colorado Commission receives any power whatsoever.

Furthermore, the Bureau contract provides, as far as possible that we would be required to wheel power for the Bureau throughout our territory and possibly to our present customers. We do not believe in this principle and object to being forced to carry power to supply possible future competitors.

There is no question in our minds but that the proposed form of contract as submitted to the Colorado River Commission is premature and objectionable in many ways. The possible small saving in the cost of power which would only affect the average customer a few cents per month is not sufficient compensation for the lack of service that would be possible from this source.

EXHIBIT 35 (Revised)

[2000]

COMPARISON OF

RATES OF RETURN AND STATISTICAL DATA

(Revised)

SUBMITTED IN RESPONSE TO QUESTIONS 1 TO 5

IN FEDERAL POWER COMMISSION ORDER FOR REARGUMENT

ISSUED SEPTEMBER 21, 1953 IN DOCKET NO. E-6482

PACIFIC GAS AND ELECTRIC COMPANY

[2001]

TABLE OF CONTENTS

Introduction

Summaries

Revenue and Sales

Capital

Operating Expense

Actual Cost of Service

Forecast Cost of Service

Trend of Costs

Summary on Kwh. Basis

[2003]

Introduction

Five of the questions posed by the Federal Power Commission in its order issued September 21, 1953 in this proceeding involve a comparison of actual results of operation with results foreseen or reasonably foreseeable at the time Pacific Gas and Electric Company entered into its 1948 contract with Sierra Pacific Power Company for the sale of power at Donner Summit. This exhibit presents a study made to determine the facts required to answer these questions. The results are summarized on Pages 3 to 6, inclusive.

Comparison of Forecast and Actual Rates of Return

For the purpose of this study a forecast was constructed as described under the heading "Forecast Cost of Service" for the years 1948 through 1952 and for 1956 and 1963 to present the 1947 outlook for the initial 15 year term of the contract. Actual results of operations and costs of service to Sierra were obtained for the years 1948 through 1952 and a new forecast based on 1953 conditions was made as described under the heading "Actual Cost of Service".

The rates of return so developed are compared in the summary on Page 3 which shows that on the forecast basis of a 3.61% rate of return might have been expected in 1948 but that only a 1.58% return was actually earned. For 1952 the forecast shows that 3.03% might have been expected but only 1.23% was earned. If the proposed rate had been in effect for 1952 the rate of return would have been 3.23% and would have been slightly above the

forecast. Comparison of the 1947 forecast with the up to date forecast for the years 1956 and 1963 shows that the 1952 relation of experience to the 1947 forecast may be expected to hold for future years without substantial change.

Effect of Increases in Sales, Capital and Costs on Rate of Return

The summary on Pages 4 and 5 shows the effect on the rate of return in 1952 of increases over the 1947 forecast in sales, capital, and costs, separately and in combination.

With increased sales at a higher load factor than forecast, Sierra received the benefit of lower average cost per kilowatt hour than would have been incurred under the forecast. For this reason the increased revenues to Pacific failed by a very slight margin to keep pace with increases in cost attributable to the greater sales. The net effect of the increase in sales over the 1947 forecast was to reduce the rate of return by 0.03%.

Increased capital gave not only a greater rate base but increased depreciation, ad valorem taxes, and insurance expense, all of which depressed the rate of return by 0.59%.

Increased operating expenses reduced the rate of return by 1.39%. A tabulation of certain cost trends is included under the heading "Trend of Costs" to show some of the factors which increased costs during this period.

The combined effect of all of these increases (not additive) was to reduce the 1952 actual rate of return 1.80% below that of the forecast. The proposed rate increase would have increased the rate of return by 2.0%.

Reduction in Rate of Return in 1948 Resulting From Adoption of F.P.C. No. 3 (Present Rate) in That Year

The summary on Page 6 shows that in 1946 the rate of return from service to Sierra was 4.47% and that adoption of the 1948 contract rate would still have permitted a 3.85% return in 1946. For the year 1948 on the forecast basis the prior rate would have yielded a return of 4.27% and the rate reduction then granted would have been expected to depress the rate of return by 0.66% to the level of 3.61%.

Relation of Rates of Return Shown Herein to Those of Exhibits 4 and 19

The general method by which the rates of return shown herein are derived is explained under the heading "Actual Cost of Service". In general, the results are most nearly comparable to those of Exhibit 4 on the undepreciated basis where for 1952 a rate of return of 1.2% (Ex. 4, p. 1A) is shown at present rates and a rate of return of 3.2% (Ex. 4, p. 1) is shown at proposed rates. Although there are differences in method, as explained herein, it is seen that the results for that year are substantially identical with those shown herein on Page 3 for 1952 actual and as adjusted to the proposed rate.

The rates of return for 1952 derived by the Commission Staff method in Exhibit 19 are 2.60% and 4.75% at present and proposed rates respectively. For reasons described under the heading "Actual Costs of Service" the methods of Exhibit 19 are not used herein. However, it can be stated with confidence that a study using the methods of that exhibit would show the same relative disparity between forecast and actual results.

COMPARISON OF FORECAST AND ACTUAL RATES OF RETURN. ALLOCATIONS OF SYSTEM CAPITAL AND COSTS ON A STRAIGHT KILOWATT HOUR BASIS

The summaries on pages 49 to 52 show comparative rates of return resulting from the allocation of system network costs on a straight kilowatt hour basis. Virtually the same differences exist between the 1947 forecast and actual and 1953 forecast as are shown on the corresponding pages 3 to 6 in which allocations are made on both a demand and energy basis. The significant difference of the straight kilowatt hour method of allocation from the demand and energy method is that higher costs resulting from service at lower load factors are neglected under the straight kilowatt hour method of allocation. This fact is apparent from the slightly higher rates of return for the earlier years and lower rates for 1963 shown on page 49 compared with corresponding years shown on page 3.

* * * * * *

[2006]

RATE OF RETURN DERIVED FROM SERVICE TO SIERRA PACIFIC POWER COMPANY FORECAST AS OF 1947 COMPARED WITH ACTUAL AND WITH FORECAST AS OF 1953
YEARS 1948 TO 1952, 1956 AND 1963

Columns (1) and (2) present a direct comparison in terms of rates of return between the 1947 forecast and the actual results of operation for the years 1948 to 1952.

For the years 1956 and 1963 the comparison is between the 1947 forecast and a forecast as of the present time (1953).

Column (3) shows the rate of return under the proposed rate for 1952, 1956, and 1963 for comparison with the 1947 forecast.

	Percent Rate of Return		
	At Present Rate (FPC No. 3)		Adjusted to Proposed Rate (Supp. No. 1, FPC No. 3)
	Forecast as of 1947 (1)	Actual (2)	Actual as Adjusted (3)
1947	3.56	2.47	
1948	3.61	1.58	
1949	3.41	0.90	
1950	2.94	1.80	
1951	2.98	1.45	
1952	3.03	1.23	3.23
	Forecast as of 1947	Forecast as of 1953	
1956	3.12	1.05	3.15
1963	3.20	1.31	3.35

[2007]

Comparison of Rates of Return for Year 1952 Derived from Service to Sierra Pacific Power Company on Various Assumptions

Line (1) of the following comparison repeats from the preceding page the actual rate of return earned for the year 1952 from service to Sierra Pacific Power Company under the present rate (FPC No. 3).

Sales to Sierra and capital and operating expense allocable to service to Sierra in that year all exceeded the estimates of the 1947 forecast. Lines (2a), (2b), and (2c) show the rates of return that would have been earned

if each of these elements, separately, had been as forecast. Thus, using actual cost experience of 1952, but assuming sales at the level forecast in 1947, line (2a) shows that the rate of return would have been 1.26% instead of 1.23%. Similarly, using operating cost and sales as actually experienced, but assuming capital (and costs directly related to capital*) as forecast, line (2b) shows that the rate of return would have been 1.82% instead of 1.23%. Again, using sales and capital as actually experienced but assuming operating expense (exclusive of costs directly related to capital*) as in the 1947 forecast, line (2c) shows a rate of return of 2.62% instead of 1.23%.

Line (2d) shows that taking actual sales to Sierra for 1952, but assuming no increases in capital or operating expense over the 1947 forecast, the rate of return would have been 2.87% instead of 1.23%.

Line (2e) repeats from the preceding page the 1947 forecast rate of return for 1952, which would have been earned if all factors had been as forecast, i.e. 3.03% instead of the actual 1.23%.

Line (3) gives the rate of return which would have actually been earned in 1952 if the requested rate increase had been in effect throughout that year. This figure of 3.23% also appears on the preceding page.

The derivation of the rates of return shown in the following comparison is given on later pages of this exhibit as indicated by the notes.

* Depreciation annuity, ad valorem taxes and insurance, injuries and damages.

[2008]

COMPARISON OF RATES OF RETURN FOR YEAR 1952 DERIVED FROM SERVICE TO SIERRA PACIFIC POWER COMPANY ON VARIOUS ASSUMPTIONS

	% Rate of Return
(1) Rate of return actually earned	1.23
(2) Rate of return that would have been earned under the present rate (FPC No. 3)—	
(2a) If sales had not increased over estimate of 1947 forecast	1.26
(2b) If capital had not increased over estimate of 1947 forecast	1.82
(2c) If operating expense had not increased over estimate of 1947 forecast	2.62
(2d) If capital and operating expense had not increased over estimate of 1947 forecast	2.87
(2e) If all factors were as forecast in 1947	3.03
(3) Rate of return that would have been earned if the proposed rate (Supp. No. 1 to FPC No. 3) had been in effect	3.23

Notes referring to line numbers above:

(1) From line 24, page 29, Actual year 1952.
(2a) From line 19, page 8.
(2b) From line 19, page 17.

(2c) From line 19, page 21.

(2d) From line 19, page 22.

(2e) From line 19, page 36, year 1952 as forecast in 1947.

(3) From line 30, page 29, actual year 1952 at Proposed Rate.

[2009]

COMPARISON OF RATE SCHEDULES FPC No. 2 AND FPC No. 3
COST VERSUS REVENUE AND RATE OF RETURN DERIVED FROM
SERVICE TO SIERRA PACIFIC POWER COMPANY
YEARS 1946 AND 1948

Year 1946: Actual sales, capital and costs
Year 1948: Sales, capital and costs as forecast in 1947

Schedule FPC No. 2 is the rate which was effective from July 1, 1939 to December 31, 1947. Hence the first column of the following table shows actual results for 1946 and the third column shows forecast results for 1948 if no change had been made in the rate.

Schedule FPC No. 3 is the rate which became effective as of January 1, 1948 and which has been designated throughout this proceeding as the present rate. The second column of this table shows the effect of applying this rate to actual results of operation in 1946. The fourth column shows the forecast results for 1948 under this rate.

Comparison of columns 1 and 2 shows that the effect of the adoption of the new rate would have been a reduction of 0.62% in rate of return from 1946 service to Sierra.

Comparison of columns 3 and 4 shows that the forecast reduction in rate of return for 1948 would have been 0.66%.

The following table summarizes the results of computations shown on page 39 of this exhibit.

	1946		1948	
	FPC No. 2 (1)	FPC No. 4 (2)	FPC No. 2 (3)	FPC No. 4 (4)
Revenue	$ 477,679	$ 438,222	$ 694,521	$ 638,092
Cost of Service @ 5.5% Return	542,812	542,812	800,516	800,516
Excess of Cost over Revenue	65,133	104,590	105,995	162,424
Amount for Return	$ 149,912	$ 146,410	$ 220,033	$ 180,285
Rate Base	3,800,363	3,800,363	5,158,762	5,158,762
Rate of Return	4.47%	3.85%	4.27%	3.61%

[2011]

REVENUES AND SALES

This section of the exhibit presents comparisons of 1947 forecast sales and revenue with actual sales and revenue for the years 1948 through 1952 and with a new forecast on the basis of 1953 conditions for the years 1956 and 1963.

These comparisons show that maximum demands, energy sales and load factors have been consistently higher than forecast, resulting in higher dollar revenues but lower revenues per kilowatt hour than were foreseen. The net effect upon rate of return is developed on page 8 which shows that if sales in 1952 had been as forecast in 1947 the rate of return from service to Sierra would have been 1.26% instead of 1.23% as actually experienced. This takes into account the reduced allocation to Sierra of system network capital and costs that would follow from the assumption of lesser demand and energy sales.

The forecast as of 1947 is that actually used by Pacific in a study made in January 1947. The kilowatts of de-

mand shown in 1947 forecast column on page 11 were based on a projection of the trend of Sierra's annual system demand and subtracting therefrom Sierra's own generating capacity. Similarly Sierra's system kilowatt hours were projected and a seven year average of Sierra's own energy generation subtracted therefrom to arrive at the 1947 forecast of kilowatt hours shown on page 12. The load factors on page 13 were calculated directly from the figures on pages 11 and 12.

The kilowatt months of demand shown in the 1947 forecast column on page 14 were derived from the forecast of maximum demands on page 11. The load factors on page 15 based on kilowatt months were calculated directly from the figures on pages 14 and 12.

Revenues were calculated for the 1947 forecast from the demand and energy data, assuming a spread of load similar to that experienced in 1946. The results in dollars appear on page 9. When reduced to mills per kilowatt hour the revenues appear as on page 10.

Actual kilowatts of maximum demand, kilowatt months of demand, kilowatt hours of sales, load factors, revenues and revenues per kilowatt hour as shown in this section were taken from Pacific's records or calculated directly therefrom.

The 1953 forecast for the years 1956 and 1963 was made in a manner similar to the 1947 forecast but using trends based on present day information. In particular the addition of a large industrial customer, Anaconda Copper Company in 1953 has been taken into account.

[2012]

ESTIMATED RATE OF RETURN FROM
SIERRA PACIFIC POWER COMPANY FOR YEAR 1952

SALES: AS IN 1947 FORECAST
CAPITAL: ACTUAL 1952 BASIS
OPERATING EXPENSES: ACTUAL 1952 BASIS

Sierra Pacific Sales Kwh (Thousands)	441,612
" " " Kw Months	872,000
Revenue under present rate (FPC No. 3)	$ 915,574
Capital: Allocation of System Network Capital	
@ $10.4559 Per Kw Month	3,895,868
@ 23.8712 Mills Per Kwh	3,380,448
Special Facilities	1,994,399
Total Capital to Serve Sierra Pacific	9,270,715
Annual Costs: Allocation of System Network	
@ $1.5298 Per Kw Month	570,003
@ 5.2387 Mills Per Kwh	741,863
Special Facilities Excl. Return & Tax	140,852
5.5% Ret. & Tax on Spec. Facilities (8.9829%)	179,155
Total Including Taxes & Return	1,631,873
Excess of Costs over Revenue	716,299
Amount for 5.5% Return & Tax (8.9829%)	832,779
Amount Available for Return & Taxes on Income	116,480
% " " " " " " "	1.26
Income Tax	—
Balance for Return	116,480
Rate of Return—%	1.26

[2013]

REVENUE DERIVED FROM SERVICE TO SIERRA PACIFIC POWER COMPANY FORECAST AS OF 1947 COMPARED WITH ACTUAL AND WITH FORECAST AS OF 1953 YEARS 1948 TO 1952, 1956 AND 1963

	Revenue Under Present Rate (FPC No. 3)	
	Forecast as of 1947	Actual
1948	$ 638,092	$ 747,672
1949	709,744	902,742
1950	774,020	1,018,591
1951	842,878	1,047,542
1952	915,374	1,228,138
	Forecast as of 1947	Forecast as of 1953
1956	$1,187,228	$1,833,086
1963	1,667,953	2,758,136

[2014]

AVERAGE REVENUE PER KILOWATT HOUR SALES DERIVED FROM SIERRA PACIFIC POWER COMPANY FORECAST AS OF 1947 COMPARED WITH ACTUAL AND WITH FORECAST AS OF 1953 YEARS 1948 TO 1952, 1956 AND 1963

	Average Revenue Per Kwh (Mills/Kwh) Sold Under Present Rate (FPC No. 3)	
	Forecast as of 1947	Actual
1948	7.00	6.71
1949	6.81	6.27
1950	6.70	6.19
1951	6.58	6.07
1952	6.47	5.81
	Forecast as of 1947	Forecast as of 1953
1956	6.17	5.50
1963	5.88	5.45

[2015]

SALES OF CAPACITY TO SIERRA PACIFIC POWER COMPANY
FORECAST AS OF 1947 COMPARED WITH ACTUAL AND WITH
FORECAST AS OF 1953
YEARS 1948 TO 1952, 1956 AND 1963

	Maximum Annual Demand Kw.	
	Forecast as of 1947	Actual
1948	29,500	31,680
1949	32,500	38,640
1950	35,000	39,720
1951	37,500	39,300
1952	40,500	46,920

	Forecast as of 1947	Forecast as of 1953
1956	51,200	68,252
1963	70,000	105,359

[2016]

SALES OF ENERGY TO SIERRA PACIFIC POWER COMPANY
FORECAST AS OF 1947 COMPARED WITH ACTUAL AND WITH
FORECAST AS OF 1953
YEARS 1948 TO 1952, 1956 AND 1963

	Annual Sales Thousands of Kwh	
	Forecast as of 1947	Actual
1948	91,097	106,953
1949	104,154	144,077
1950	115,447	164,683
1951	128,977	172,537
1952	141,612	211,347

	Forecast as of 1947	Forecast as of 1953
1956	192,415	333,000
1963	283,452	506,000

[2017]

ANNUAL LOAD FACTOR OF SALES TO SIERRA PACIFIC POWER COMPANY
FORECAST AS OF 1947 COMPARED WITH ACTUAL AND WITH FORECAST AS OF 1953
YEARS 1948 TO 1952, 1956 AND 1963

	Percent Load Factor	
	Forecast as of 1947	Actual
1948	35.2	38.4
1949	36.6	42.6
1950	37.7	47.3
1951	38.8	50.1
1952	39.8	51.3
	Forecast as of 1947	Forecast as of 1953
1956	42.8	55.5
1963	46.2	54.8

[2018]

KILOWATT MONTHS TO SIERRA PACIFIC POWER COMPANY
FORECAST AS OF 1947 COMPARED WITH ACTUAL AND WITH FORECAST AS OF 1953
YEARS 1948 TO 1952, 1956 AND 1963

	Sum of Monthly Maximum Demands KW-Months	
	Forecast as of 1947	Actual
1948	271,400	289,599
1949	299,000	365,460
1950	322,000	392,313
1951	346,840	410,820
1952	372,600	482,460
	Forecast as of 1947	Forecast as of 1953
1956	471,040	701,808
1963	644,000	1,053,364

[2019]

LOAD FACTOR OF SALES TO SIERRA PACIFIC POWER COMPANY
BASED ON KILOWATT MONTHS
FORECAST AS OF 1947 COMPARED WITH ACTUAL AND WITH
FORECAST AS OF 1953
YEARS 1948 TO 1952, 1956 AND 1963

PACIFIC GAS AND ELECTRIC COMPANY LOAD FACTOR
BASED ON KILOWATT MONTHS TO PRIMARY
SUB INPUT ACTUAL YEARS 1948-1952

	Percent Load Factor Based on Kilowatt Months		
	Sierra Pacific		P.G.&E.
	Forecast as of 1947	Actual	Actual
1948	45.9	50.5	59.0
1949	47.7	54.0	59.3
1950	49.1	57.5	60.1
1951	50.6	57.5	57.6
1952	51.9	59.8	59.8

	Forecast as of 1947	Forecast as of 1953
1956	55.8	64.8
1963	60.3	64.0

* * * * *

[2021]

CAPITAL

This section of the exhibit presents comparisons of 1947 forecast capital and revenue with actual capital allocated to service to Sierra for the years 1948 through 1952 and with a new forecast on the basis of 1953 conditions for the years 1956 and 1963.

These comparisons show that the dollars of capital allocated to Sierra have been consistently higher in actual

experience than in the 1947 forecast. The increase in 1948 and 1949 is due primarily to the higher allocation to Sierra resulting from the unforeseen increase in demand and energy requirements. In 1950, 1951 and 1952 the effect of higher unit investment in system network capital and the much higher cost of the new 110 Kv transmission line built to serve Sierra also increase the actual capital over that forecast. In 1956 and 1963 the 1953 forecast includes in capital $1,227,000 for the cost of a second 110 Kv transmission line (estimated to be required for service to Sierra by the end of 1955) which was not contemplated by the 1947 forecast. The 1948 contract obligates Pacific to build such a line (or convert a 60 Kv line) if "Sierra shall require more power and electric energy than Pacific can supply reasonably through" the existing lines.

The net effect of the increase in capital over that of the 1947 forecast for the year 1952 is developed on page 17 which shows that if unit capital investment for system network facilities had not increased from $9.2471 per kilowatt month and 21.5912 mills per kwh in 1946(1) to $10.4559 per Kilowatt month and 23.8712 mills per kwh in 1952(2) and if the capital investment in special facilities to serve Sierra had not exceeded that forecast by some $841,000(3) the rate of return would have been 1.82% instead of 1.23% actually experienced.

The dollars of capital shown on Page 18 for the 1947 forecast are taken from line 6 of Page 36 and represent the capital investment in special facilities as actually estimated in 1947 plus the units of investment in system network capital for 1946 multiplied by the forecast kilowatt months and kilowatt hours of sales to Sierra for each year. The "actual" dollars shown on that page are taken from line 8 of Page 29 and represent annual actual

average investment in special facilities to serve Sierra plus the actual units of investment in system network capital for each year multiplied by the actual kilowatt months and kilowatt hours of sales for each year.

The 1953 forecast figures are based on 1952 unit capital investment in system network facilities and, as mentioned above, assume construction of an additional 110 kv line in 1955.

The dollars of capital investment per kilowatt month shown on Page 19 are derived from the amounts on Page 18 by dividing by the appropriate kilowatt months.

(1) See Page 37.
(2) See Page 31.
(3) Comparing Page 29, line 5 with Page 36, line 4.

[2022]

ESTIMATED RATE OF RETURN FROM
SIERRA PACIFIC POWER COMPANY FOR YEAR 1952

SALES: ACTUAL 1952
CAPITAL: 1947 FORECAST BASIS
OPERATING EXPENSES: ACTUAL 1952

1.	Sierra Pacific Sales Kwh (Thousands)	211,347
2.	" " " Kw Months	482,460
3.	Revenue	$ 1,228,138
4.	Capital: Allocation of System Network @ $9.2471 Per Kw Month	4,461,356
5.	@ 21.5912 Mills/Kwh	4,563,235
6.	Special Facilities	1,153,284
7.	Total Capital to Serve Sierra Pacific	10,177,875
	Annual Costs: Allocation of System Network	
8.	@ $1.4227 Per Kw Month	686,396
9.	@ 4.8722 Mills Per Kwh	1,029,725
10.	Special Facilities	137,695
11.	5.5% Return & Tax on Special Facilities (8.9829%)	103,598
12.	Total Including Taxes and Return	1,957,414
13.	Excess of Costs over Revenue	729,276
14.	Amount for 5.5% Return & Tax (8.9829%)	914,268
15.	Amount Available for Return & Taxes on Income	184,992
16.	% " " " " " " "	1.82
17.	Income Tax	—
18.	Balance for Return	184,992
19.	Rate of Return—%	1.82

NOTE: Actual 1952 depreciation property taxes and insurance have been adjusted to reflect lesser amount of 1952 capital forecast in 1947 than 1952 actual capital.

[2023]

CAPITAL ALLOCABLE TO SERVICE TO SIERRA PACIFIC POWER COMPANY
FORECAST AS OF 1947 COMPARED WITH ACTUAL AND WITH FORECAST AS OF 1953
YEARS 1948 TO 1952, 1956 AND 1963

	Dollars of Capital	
	Forecast as of 1947	Actual
1948	$ 5,154,762	$ 5,535,144
1949	5,810,668	7,444,431
1950	6,623,489	9,914,980
1951	7,125,884	10,412,396
1952	7,656,326	12,084,060
	Forecast as of 1947	Forecast as of 1953
1956	$ 9,663,509	$18,437,292
1963	13,228,485	26,628,135

[2024]

UNIT CAPITAL ALLOCABLE TO SERVICE TO SIERRA PACIFIC POWER COMPANY
FORECAST AS OF 1947 COMPARED WITH FORECAST AS OF 1953
YEARS 1948 TO 1952, 1956 AND 1963

	Dollars per Kw-Month	
	Forecast as of 1947	Actual
1948	18.99	19.11
1949	19.43	20.37
1950	20.57	25.27
1951	20.55	24.62
1952	20.55	25.05
	Forecast as of 1947	Forecast as of 1953
1956	20.52	26.27
1963	20.54	24.58

OPERATING EXPENSES AND COST OF SERVICE

This section of the exhibit presents comparisons of 1947 forecast costs of service and operating expenses with actual costs of service and operating expenses for the years 1948 through 1952 and with a new forecast on the basis of 1953 conditions for the years 1956 and 1963. The term "operating expenses" here is used in the sense of all costs of service except return and income tax.

These comparisons show that costs of service have been substantially higher for service to Sierra than in the 1947 forecast. Since system network costs are allocated to Sierra on the basis of sales to Sierra, the dollar figures reflect the increases in demand and energy sales over those forecast as well as the increases in network unit costs and increases in costs attributable to the special facilities used for service to Sierra.

Costs of service were also increased substantially by the additional capital investment to serve Sierra, requiring more depreciation, property taxes, insurance expense, income taxes and return. The unit demand cost for system network capacity increased sharply from $1.17 per kilowatt month in 1946 to $1.40 in 1948, dropped to $1.37 in 1950, and rose to $1.53 in 1952. (See p. 31, line 15). The unit cost for energy from the system network followed a similar trend, from 4.1 mills per kilowatt hour in 1946, to 4.9 mills in 1948, down to 4.7 mills in 1950 and up again to 5.3 mills in 1952. (See p. 31, line 17.) Operating expenses related to special facilities have been on the order of double those in the 1947 forecast but, being a small proportion of the total, have not greatly influenced the results.

The net effect of the increases in operating expenses over the 1947 forecast for the year 1952 is developed on Page 21 which shows that if those expenses (excluding the expenses directly related to capital) had been as forecast the rate of return would have been 2.62% instead of 1.23% as actually experienced. If expenses directly related to capital had also been as forecast the rate of return for 1952 would have been still higher, 2.87% as shown on Page 22. Neither of these figures includes any substantial effect of the unforeseen increase in income tax rates since 1946.

The 1947 forecast costs of service shown on Page 23 are taken from Page 36, line 12. The derivation is explained in the text beginning at Page 34. The actual costs of service and the 1953 forecast for 1956 and 1963 shown on Page 23, are taken from Page 29, line 17, and their derivation is explained in the text beginning on Page 27.

The operating expense figures on Page 24 eliminate from the costs of service shown on Page 23 return and income taxes shown on Page 36, line 14 for the 1947 forecast and on Page 29, line 18 for the remainder.

The dollar amounts on Pages 23 and 24 are reduced to mills per kilowatt hour on Pages 25 and 26 respectively.

[2027]

ESTIMATED RATE OF RETURN FROM
SIERRA PACIFIC POWER COMPANY FOR YEAR 1952

SALES: ACTUAL 1952
CAPITAL: ACTUAL 1952
OPERATING EXPENSE: 1947 FORECAST BASIS

1.	Sierra Pacific Sales Kwh (Thousands)	211,347
2.	" " " Kw Months	482,460
3.	Revenue	$ 1,228,138
4.	Capital: Allocation of System Network @ $10.4559 Per Kw Month	5,044,554
5.	@ 23.8712 Mills Per Kwh	5,045,107
6.	Special Facilities	1,994,399
7.	Total Capital to Serve Sierra Pacific	12,084,060
	Annual Costs: Allocation of System Network	
8.	@ $1.3346 Per Kw Month	643,891
9.	4.6051 Mills Per Kwh	973,274
10.	Special Facilities	23,214
11.	5.5% Ret. & Tax on Special Facilities (7.3348%)	146,285
12.	Total Including Taxes & Return	1,786,664
13.	Excess of Costs over Revenue	558,526
14.	Amount for 5.5% Return & Tax (7.3348%)	886,342
15.	Amount Available for Return & Taxes on Income	327,816
16.	Percent " " " " " " "	2.71
17.	Income Tax	10,876
18.	Balance for Return	316,940
19.	Rate of Return—%	2.62

NOTE: Depreciation, property taxes and insurance, injuries, and damages as forecast in 1947 have been adjusted to reflect greater amount of 1952 actual capital over forecast of 1947.

[2028]

ESTIMATED RATE OF RETURN FROM SIERRA PACIFIC POWER COMPANY FOR YEAR 1952

SALES: ACTUAL 1952
CAPITAL: 1947 FORECAST BASIS
OPERATING EXPENSE: 1947 FORECAST BASIS

1.	Sierra Pacific Sales Kwh (Thousands)	211,347
2.	" " " Kw Months	482,460
3.	Revenues	$ 1,228,138
4.	Capital: Allocation of System Network @ $9.2471 Per Kw Month	4,461,356
5.	@ 21.5912 Mills Per Kwh	4,563,235
6.	Special Facilities Capital	1,153,284
7.	Total Capital to Serve Sierra Pacific	10,177,875
8.	Annual Costs: Allocation of System Network @ $1.2342 Per Kwh Month	595,452
9.	@ 4.3227 Mills Per Kwh	913,590
10.	Special Facilities	71,096
11.	5.5% Return and Tax on Spec. Facilities (7.3348%)	84,591
12.	Total Including Taxes and Return	1,664,729
13.	Excess of Costs over Revenue	436,591
14.	Amount for 5.5% Return & Tax (7.3348%)	746,527
15.	Amount Available for Return & Taxes	309,936
16.	% " " " " "	3.05
17.	Income Tax	18,320
18.	Balance for Return	291,616
19.	Rate of Return—%	2.87

[2029]

Cost of Service to Sierra Pacific Power Company Forecast as of 1947 Compared With Actual and With Forecast as of 1953 Years 1948 to 1952, 1956 and 1963

	Cost of Service Including Operating Expense, 5.5% Return, and Taxes on Income	
	Forecast as of 1947	Actual
1948	$ 800,516	$1,028,662
1949	912,002	1,364,970
1950	1,052,142	1,591,347
1951	1,137,395	1,768,146
1952	1,227,696	2,165,258

	Forecast as of 1947	Forecast as of 1953
1956	$1,568,797	$3,295,326
1963	2,175,790	4,801,041

[2030]

OPERATING EXPENSE ALLOCABLE TO SERVICE TO SIERRA PACIFIC POWER COMPANY
(DEFINED AS ALL COSTS OF SERVICE EXCLUDING RETURN AND TAXES ON INCOME)
FORECAST AS OF 1947 COMPARED WITH ACTUAL AND WITH FORECAST AS OF 1953
YEARS 1948 TO 1952, 1956 AND 1963

	Operating Expense	
	Forecast as of 1947	Actual
1948	$ 422,425	$ 630,480
1949	485,801	835,902
1950	566,322	840,099
1951	614,726	901,322
1952	666,120	1,079,759

	Forecast as of 1947	Forecast as of 1953
1956	$ 859,998	$1,639,122
1963	1,205,507	2,409,062

[2031]

Unit Cost of Service Allocable to Service to Sierra Pacific Power Company
Forecast as of 1947 Compared With Actual and With Forecast as of 1953
Years 1948 to 1952, 1956 and 1963

	Cost of Service, Including Operating Expense 5.5% Return and Taxes on Income Mills per Kwh	
	Forecast as of 1947	Actual
1948	8.79	9.62
1949	8.76	9.47
1950	9.11	9.66
1951	8.88	10.25
1952	8.67	10.25

	Forecast as of 1947	Forecast as of 1953
1956	8.15	9.90
1963	7.68	9.49

[2032]

UNIT OPERATING EXPENSE ALLOCABLE TO SERVICE TO SIERRA PACIFIC POWER COMPANY
(DEFINED AS UNIT COST OF SERVICE EXCLUDING RETURN AND TAXES ON INCOME)
FORECAST AS OF 1947 COMPARED WITH ACTUAL AND WITH FORECAST AS OF 1953
YEARS 1948 TO 1952, 1956 AND 1963

	Unit Operating Expense Mills per Kwh	
	Forecast as of 1947	Actual
1948	4.64	5.89
1949	4.66	5.80
1950	4.91	5.10
1951	4.80	5.22
1952	4.70	5.11

	Forecast as of 1947	Forecast as of 1953
1956	4.47	4.92
1963	4.25	4.76

* * * * *

ACTUAL COST OF SERVICE

This section of the exhibit develops the actual rates of return experienced during the years 1948 to 1952, inclusive, and provides the basis for estimates of system capital and costs reasonably foreseeable in 1947 and at the present time (1953).

The method of development of actual cost of service is to consider capital and costs for Pacific Gas and Electric Company's Integrated Network up to Primary Substation Input (excluding any portion of special facilities serving Sierra included therein) as allocable to service to Sierra. Fifty per cent of the capital is allocated on the basis of the ratio of the sum of Sierra's monthly maximum demands (kilowatt months) to the sum of system network monthly maximum demands at primary sub input. The other 50% of capital is allocated on the ratio of kilowatt hour sales to Sierra to primary sub input kilowatt hours. Forty per cent of system costs are allocated on the basis of the same demand ratio, while remaining operating costs (sixty per cent) are allocated on the kilowatt hour basis. To system capital and costs thus allocated, capital and costs on special facilities serving Sierra are added to obtain the total capital and annual costs allocable to service to Sierra. The costs related to the standby service for 4000 kilowatts have not been determined or included herein, though it is evident that they have increased from 1948 to 1952.

Allocation of system network capital and costs follow the method used in studies made in 1947 and approximates the method of Exhibit 4. Treatment of special facilities serving Sierra separately from system network costs also follows the method of 1947 studies and Exhibit 4, and is

appropriate for comparison with the forecast as of 1947. Studies made at that time were directly concerned with the question of whether or to what extent the cost of the 110 Kv line then under consideration would be justified. The cost of this line constitutes a major part of the cost of the special facilities and any forecast prior to its construction would have had to allocate it entirely to Sierra as is done herein.

Working capital in the rate base for Sierra consists solely of an allocation of materials and supplies from the totals to Primary Substation Input. No working cash has been included and no allowance for income tax accruals would be appropriate since no income taxes were payable on the return from service to Sierra during this period.

Rates of return are developed on the basis of sinking fund depreciation using an undepreciated rate base and including as an expense only the annuity component of depreciation. This was the method consistently used by Pacific and by the California Public Utilities Commission until recently and was actually employed by Pacific in its studies in 1947. Use of a depreciated rate base for any given year would have shown slightly lower rates of return both for forecast and actual results and the differences between the forecast and actual results would have been slightly greater. Relations from year to year would not be sufficiently different from those shown in this study to warrant the arduous and time-consuming task of developing the study on a depreciated basis as used in Exhibit 19.

[2035]

Rates of return actually earned in the years 1948 to 1952 and as now forecast in 1956 and 1963 under rate schedule F.P.C. No. 3 are shown on line 24 of Page 29.

On line 30 of that page rates of return that would have been earned in 1952 and now forecast for 1956 and 1963 under rate schedule F.P.C. No. 3, Supplement No. 1 are shown.

Page 30 shows that adjustment for reclassification of accounts (effective December 31, 1948) does not produce a significant change in the rate of return earned from service to Sierra in 1948. Subsequent to 1948 capital and costs in this study are on the reclassified basis. No expenses are included herein for amortization of the plant acquisition adjustment account.

Units for allocation of system network capital are developed on lines 7 and 8 of Page 31 and units for allocation of costs are shown on lines 15 and 17 of that page. These units are developed from the system recorded amounts of capital and expenses up to primary substation input shown for the years 1946 to 1952, inclusive, on Page 32.

Capital and operating expense for special facilities to serve Sierra are shown on Page 33. The amounts for 1948 through 1952 are recorded or developed from recorded figures as in Exhibit 3 for 1952. The amounts forecast for 1956 and 1963 include the additional capital and expense of an additional 110 Kv line anticipated to be placed in operation during 1955.

Summary and Derivation of Return

Actual 1948 to 1952

Forecast 1956 and 1963 Looking Forward from 1952

		1948	1949	1950	1951	1952	1956	1963
1.	Sales to Sierra, Thousands Kwh	106,953	144,077	164,683	172,537	211,347	330,000	506,000
2.	" " " " Kw Months	289,599	365,460	392,313	410,820	482,460	701,808	1,083,364
3.	Capital: Alloc. of Netwk, $/Kw Mo.	8.9341	9.3257	10.3364	9.9138	10.4559	10.4559	10.4559
4.	" " " " , Mills/Kwh	20.6939	21.5317	23.5729	23.5832	23.8712	23.8712	23.8712
5.	Kw Month Amount	2,587,306	3,408,170	4,055,104	4,072,787	5,044,554	7,338,034	11,327,546
6.	Kwh Amount	2,213,275	3,102,223	3,882,056	4,068,975	5,045,107	7,877,496	12,078,827
7.	Special Facilities	734,563	934,038	1,977,820	1,970,634	1,994,399	3,221,762	3,221,762
8.	Total Capital to Serve Sierra	5,535,144	7,444,431	9,914,980	10,112,396	12,084,060	18,437,292	26,628,135
9.	Revenue: Present Rate (FPC #3)	717,672	902,742	1,018,591	1,047,542	1,228,138	1,833,086	2,758,136
10.	Proposed Rate (FPC 3 Supp 1)					1,570,893	2,356,350	3,556,566
11.	Annual Costs: Alloc. of Netwk, $/Kw Mo.	1.3980	1.4248	1.3681	1.4195	1.5298	1.5298	1.5298
12.	" " " " , Mills/Kwh	4.8574	4.9345	4.6802	5.0651	5.2387	5.2387	5.2387
13.	Kw Months Amount	404,859	520,707	536,723	583,159	738,067	1,073,626	1,657,330
14.	Kwh Amount	519,514	710,948	770,749	873,917	1,107,184	1,728,771	2,650,782
15.	Special Facilities Excl. Ret. & Tax	51,447	66,934	134,018	142,149	140,852	203,521	203,521
16.	5.5% Ret. & Tax on Spec. Facilities	52,842	66,381	149,857	168,921	179,155	289,408	289,408
17.	Total Costs Incl. Ret. & Tax on Inc.	1,028,662	1,364,970	1,591,347	1,768,146	2,165,258	3,295,326	4,801,041
18.	Amount for 5.5% Return & Tax	398,182	529,068	751,248	866,824	1,085,499	1,656,204	2,391,979
	Present Rate (FPC #3)							
19.	Excess of Cost over Revenue	310,990	462,228	572,756	720,604	937,120	1,462,240	2,042,905
20.	Amount Available for Return & Tax	87,192	66,840	178,492	146,220	148,379	193,964	349,074
21.	% " " " " "	1.58	.90	1.80	1.45	1.23	1.05	1.31
22.	Taxes on Income	—	—	—	—	—	—	—
23.	Balance for Return	87,192	66,840	178,492	146,220	148,379	193,964	349,074
24.	Rate of Return—%	1.58	.90	1.80	1.45	1.23	1.05	1.31
	Proposed Rate (FPC #3 Supp. 1)							
25.	Excess of Cost over Revenue					594,365	938,976	1,244,475
26.	Amount Available for Return & Tax					491,134	717,228	1,147,504
27.	% " " " " "					4.06	3.89	4.31
28.	Taxes on Income					100,298	136,486	255,630
29.	Balance for Return					390,836	580,792	891,874
30.	Rate of Return—%					3.23	3.15	3.35

[2037]

RATE OF RETURN DERIVED FROM SERVICE TO SIERRA PACIFIC POWER COMPANY
ACTUAL 1948 AND 1948 ADJUSTED FOR RECLASSIFICATION OF ACCOUNTS

		1948	Adjustment	1948 Adjusted
1.	System Kwh at Pri. Sub Input (Thousands)	10,031,437		10,031,43
2.	System Kw Months at Pri. Sub Input	23,235,464		23,235,4
3.	Sales to Sierra Pac. Pr. Co. (Thous. Kwh)	106,953		106,95
4.	" " " " " " (Kw. Months)	289,599		289,59
5.	Capital: Integrated Network	$415,178,990	$—5,569,152	$409,609,83
6.	50%	207,589,495		204,804,91
7.	Amount per Kw. Month, Dollars	8.9341		8.814
8.	Amount per Kwh, Mills	20.6939		20.41
9.	Alloc. of Netwk Cap. to Sierra, Kw Mo. Amt.	2,587,306		2,552,61
10.	" " " " " " , Kwh Amt.	2,213,275		2,183,58
11.	Special Facilities Serving Sierra	734,563		734,56
12.	Total Capital to Serve Sierra	5,535,144		5,470,70
13.	Revenue (FPC #3)	717,672		717,67
	Annual Cost			
14.	Network Incl. 5.5% Return & Tax	81,210,386	—41,524	81,168,86
15.	40% " " " " " "	32,484,154		32,467,54
16.	40% " " " " " " $/Kw. Mo.	1.3980		1.397
17.	60% " " " " " "	48,726,232		48,701,31
18.	60% " " " " " " Mills/Kwh	4.8574		4.858
19.	Kw Month Amount	404,859		404,65
20.	Kwh Amount	519,514		519,67
21.	Special Facilities Excl. Return & Tax	51,447		51,44
22.	5.5% Ret. & Tax on Special Facilities	52,842		52,84
23.	Total Costs Incl. Ret. & Tax on Income	1,028,662		1,028,62
24.	Amount for 5.5% Return & Tax	398,182		393,55
25.	Excess of Cost over Revenue	310,990		310,94
26.	Amount Available for Return & Tax	87,192		82,60
27.	% " " " " " "	1.58		1.5
28.	Taxes on Income			
29.	Balance for Return	87,192		82,60
30.	Rate of Return—%	1.58		1.5

ALLOCATION OF SYSTEM NETWORK CAPITAL AND OPERATING COST
TO SERVE SIERRA PACIFIC POWER COMPANY
ACTUAL 1948 TO 1952

		1948	1949	1950	1951	1952
	At Primary Substation Input					
1.	System Kwh Thousands	10,031,437	11,193,691	12,140,798	13,799,866	14,696,368
2.	" Kw Months	23,235,464	25,844,511	27,687,927	32,827,271	33,552,288
3.	Capital: Total System	$415,881,778	$482,937,953	$574,320,204	$652,815,183	$703,590,496
4.	Special Facilities Serving Sierra	702,788	899,874	1,933,406	1,926,220	1,949,985
5.	Balance Integrated Network Capital	415,178,990	482,038,079	572,386,798	650,888,963	701,640,511
6.	50%	207,589,495	241,019,040	286,193,399	325,444,482	350,820,256
7.	Amount per Kw Month, Dollars	8.9341	9.3257	10.3364	9.9138	10.4559
8.	Amount per Kwh, Mills	20.6939	21.5317	23.5729	23.5832	23.8712
	Annual Cost					
9.	Total System Excl. Return & Tax	$ 51,392,871	$ 57,864,557	$ 51,464,276	$ 60,842,743	$ 65,427,353
10.	Special Facilities Serving Sierra	49,216	64,659	130,922	138,991	137,608
11.	Balance Integrated Network	51,343,655	57,799,898	51,333,354	60,703,752	65,289,745
12.	5.5% Return & Tax	29,866,731	34,257,964	43,369,175	55,793,551	63,027,665
13.	Network Cost Incl. Return & Tax	81,210,386	92,057,862	94,702,529	116,497,303	128,317,410
14.	40% " " " " " "	32,484,154	36,823,145	37,881,012	46,598,921	51,326,964
15.	40% " " " " " " $/Kw Mo.	1.3980	1.4248	1.3681	1.4195	1.5298
16.	60% Network Cost Incl. Return & Tax	48,726,232	55,234,717	56,821,517	69,898,382	76,990,446
17.	60% " " " " " " Mills/Kwh	4.8574	4.9345	4.6802	5.0651	5.2387

[2038]

2038

PACIFIC GAS AND ELECTRIC COMPANY
COST OF POWER UP TO PRIMARY SUBSTATION INPUT
YEARS 1946 TO 1952 INCLUSIVE
DOLLARS

	1946	1947	1948	1949	1950	1951	1952
Capital: Average for Year							
Fixed, Tangible & Direct	352,695,093	360,538,412	395,932,521	463,638,668	558,066,648	635,465,060	684,297,641
Elec. Gen. & Com. Util. Plant	5,976,179	7,246,878	9,023,236	10,092,108	10,475,456	10,578,626	11,962,962
M & S, Organiz. & Franchises	4,844,116	7,823,361	10,926,021	9,207,177	5,778,100	6,771,497	7,329,893
Total Capital	363,515,388	375,608,651	415,881,778	482,937,953	574,320,204	652,815,183	703,590,496
Annual Costs:							
Depreciation Annuity	2,943,823	3,085,313	3,495,278	4,364,476	5,316,254	6,452,300	7,766,434
Maintenance	2,650,858	3,982,763	3,752,474	4,056,654	3,790,523	4,172,196	5,281,036
Natural Gas Fuel	1,256,077	4,133,232	5,654,481	5,527,493	5,654,244	8,491,921	11,797,096
Other Fuel	6,560,329	12,322,536	12,002,953	16,560,287	7,117,137	10,643,639	8,263,324
Water for Power & Steam	819,920	826,438	824,935	752,261	863,647	894,630	604,031
Rents	384,946	352,529	343,954	230,033	247,952	346,486	300,958
Other Operating Expense	4,683,467	5,727,407	6,530,509	7,335,471	7,208,718	7,778,088	8,914,128
Purchased & Interchange Power	7,539,251	8,266,027	13,499,346	11,720,232	11,385,443	10,974,876	10,166,451
Ins., Injuries & Damages	213,520	269,050	276,208	347,572	366,878	406,271	557,282
Social Security Taxes	138,032	155,852	88,650	139,662	327,636	317,214	248,131
Property Taxes	5,488,963	6,007,229	7,457,018	8,826,163	10,599,401	12,594,693	13,726,527
Administrative & General	823,221	902,720	954,876	1,065,186	1,097,506	1,108,520	1,278,587
Pensions	246,700	316,120	328,551	394,605	403,734	505,771	396,364
Misc. Revenue—Credit	−2,879,108	−3,554,341	−3,816,362	−3,455,538	−2,914,797	−3,843,862	−3,872,996
Total Excl. Ret. & Inc. Taxes	30,869,999	42,792,875	51,392,871	57,864,557	51,464,276	60,842,743	65,427,353
Interest @ 5.5%	19,993,346	20,658,476	22,873,498	26,561,587	31,587,611	35,904,835	38,697,477
Income Tax	6,669,780	6,519,064	7,043,790	7,760,330	11,928,056	20,053,830	24,505,353
Total Incl. 5.5% Ret: & Taxes on Income	57,533,125	69,970,415	81,310,159	92,186,474	94,979,943	116,801,408	128,630,183

NOTE: Depreciation annuity is on a 5% sinking fund basis for all years except 1952, which is on a 4% sinking fund basis.

[2040]

SPECIAL FACILITIES TO SERVE SIERRA PACIFIC
CAPITAL AND OPERATING EXPENSE
ACTUAL 1948-1952, FORECAST 1956 & 1963
LOOKING FORWARD FROM 1952

	1948	1949	1950	1951	1952	1956 & 1963
Capital:						
To Primary Sub Input	$702,788	$899,874	$1,933,406	$1,926,220	$1,949,985	$3,177,348
Distribution	31,775	34,164	44,414	44,414	44,414	44,414
Total	734,563	934,038	1,977,820	1,970,634	1,994,399	3,221,762
Annual Costs:						
To Primary Sub Input						
Depreciation	7,655	9,296	17,862	17,633	10,654	16,813
Maintenance	8,336	11,136	21,353	22,996	24,516	36,879
Operation	25,222	35,443	73,602	79,264	84,503	104,605
Commercial	—	—	—	—	—	—
Property Tax	8,003	8,784	18,105	19,098	17,935	36,520
Ins. Inj. & Damages	—	—	—	—	—	1,097
A & G & Pensions	—	—	—	—	—	4,351
Total Excl. Ret. & Inc. Tax	49,216	64,659	130,922	138,991	137,608	200,265
Distribution:						
Depreciation	471	507	661	661	688	688
Maintenance	354	402	528	568	606	606
Operation	528	483	645	694	740	740
Commercial	482	512	524	565	602	602
Property Tax	396	371	738	670	608	620
Total Excl. Ret. & Inc. Tax	2,231	2,275	3,096	3,158	3,244	3,256
Total Spec. Facilities:						
Depreciation	8,126	9,803	18,523	18,294	11,342	17,501
Maintenance	8,690	11,538	21,881	23,564	25,122	37,485
Operation	25,750	35,926	74,247	79,958	85,243	105,345
Commercial	482	512	524	565	602	602
Property Tax	8,399	9,155	18,843	19,768	18,543	37,140
Ins. Inj. & Damages	—	—	—	—	—	1,097
A & G & Pensions	—	—	—	—	—	4,351
Total Excl. Ret. & Inc. Tax	51,447	66,934	134,018	142,149	140,852	203,521

FORECAST COST OF SERVICE AS OF 1947

The Commission's questions ask for comparison between actual results and results "foreseen or reasonably foreseeable by Pacific Gas and Electric Company when it entered into the 1948 contract". This section of the Exhibit develops forecast of the results "reasonably foreseeable" since no complete study was made at that time with which actual results can be compared. This forecast uses, however, actual estimates made prior to entering into the contract with respect to capital, annual costs on special facilities, and sales.

The forecast developed here is assumed to have been made in the third quarter of 1947, before the rate of the 1948 contract was offered to Sierra in October 1947. From that time on, Pacific was committed to this rate. A contract in substantially final form was submitted to Sierra in December 1947 and the rate became effective as of January 1, 1948 though actual execution of the contract did not take place until March 4, 1948.

In the third quarter of 1947 the latest unit costs available to Pacific's staff were the results for the year 1946. In normal practice Pacific's staff would have used these results without adjustment as the basis for a forecast. Regulated rates are generally based upon costs actually experienced and this Commission, like others, has been reluctant to make any allowance for the contingency of rising trends in costs. Unlike unregulated industry, utilities do not generally include any amount in their charges to cover increases in cost which may be in effect at the time service is actually rendered.

The year 1947, however, was one of exceptional uncer-

tainty as to the future. A postwar recession, paralleling 1921, was anticipated by most of the economic prophets and a great effect was made to predict the timing and extent of the downturn. The government was concerned with preparing measures to keep any recession from becoming a depression. All predictions, however, were made without foreknowledge of the Korean action, which gave a tremendous impetus to inflation at a time when the economy seemed to have leveled off. Even now, from hindsight, it is difficult to determine what a rational rate engineer would have been justified in using in 1947 for a cost basis for a 15 year forecast.

It seems likely, however, that it would have been prudent to make some allowance over 1946 costs for the sharp price rise which followed the removal of price ceilings in 1946. Two factors would have limited the amount of the adjustment to be made. The first was a general belief that the price rise was a temporary phenomenon, soon to be counteracted by the postwar recession. The second factor was that in Pacific's experience price increases had consistently been offset by increased efficiencies with the result that unit costs had steadily declined over a long period of years. It was not easy to recognize the extent or permanency of the inflation which in fact had already commenced.

Taking into account all of the circumstances a reasonable and conservative basis for a forecast as of the third quarter of 1947 would have been tho actually experienced 1946 costs increased by 10%. The forecast which follows was constructed on this basis.

[2043]

The forecast of revenues is described on Page 7.

Units of network capital investment are assumed to be

the same as that in 1946. The derivation is shown on Page 37. Special facilities capital investment for 1948 is assumed to be the actual capital of 1946 plus the estimated additional investment for increasing conductor size on both 60 Kv lines to equivalent 4/0 copper. Capital investment for 1949 assumes completion of the 110 Kv line to serve Sierra at the end of September. No change was estimated for subsequent years.

Derivation of the unit costs for system network operating expense (cost to primary substation input) is shown on Page 37, the basic figures being taken from the actual results for 1946 shown on Page 32. The operating expenses for the special facilities allocated directly to Sierra are derived on Page 38 from estimates actually made in 1947 with the addition of a 10% increase.

Page 39 derives the rate of return actually earned under F.P.C. No. 2 for the year 1946, and the rate of return that would have been earned in that year if adjusted to rate schedule F.P.C. No. 3. The rates of return for the year 1948 as forecast in 1947 are also shown for each of these rates.

SUMMARY AND DERIVATION OF RETURN
1948-1952 AS FORECAST IN 1947
1956 AND 1963 AS FORECAST IN 1947

		1948	1949	1950	1951	1952	1956	1963
1.	Sales to Sierra Pacific Power Co. Thousands Kwh	91,097	104,154	115,447	128,077	141,612	192,415	283,452
2.	Kw Months	271,400	299,000	322,000	346,840	372,600	471,040	644,000
3.	Allocation of System Capital @ $9.2471 Per Kw Month	2,509,663	2,764,883	2,977,566	3,207,264	3,445,469	4,355,754	5,955,132
4.	@ 21.5912 Mills Per Kwh	1,966,894	2,248,810	2,492,639	2,765,336	3,057,573	4,154,471	6,120,069
5.	Special Facilities	678,205	796,975	1,153,284	1,153,284	1,153,284	1,153,284	1,153,284
6.	Total Capital Allocated to Service to Sierra	5,154,762	5,810,668	6,623,489	7,125,884	7,656,326	9,663,509	13,228,485
7.	Revenue	638,092	709,744	744,020	842,878	915,574	1,187,228	1,667,953
	Annual Cost (Based on 1946 Costs plus 10%) System Integrated Network Alloc.							
8.	@ $1.2342 Per Kw Month	334,962	369,026	397,412	428,070	459,863	581,358	794,825
9.	@ 4.3227 Mills Per Kwh	393,785	450,226	499,043	553,638	612,146	831,752	1,225,278
10.	Special Facilities Excl. Ret. & Tax	22,024	34,293	71,096	71,096	71,096	71,096	71,096
11.	5.5% Return and Tax on Special Facilities (7.3348%)	49,745	58,457	84,591	84,591	84,591	84,591	84,591
12.	Total Cost Incl. Ret. & Tax on Income	800,516	912,002	1,052,142	1,137,395	1,227,696	1,568,797	2,175,790
13.	Excess Cost over Revenue	162,424	202,258	278,122	294,517	312,122	381,569	507,837
14.	Amount for 5.5% Ret. & Tax (7.3348%)	378,091	426,201	485,820	522,669	561,576	708,799	970,283
15.	Amount Available for Return & Tax	215,667	223,943	207,698	228,152	249,454	327,230	462,446
16.	% " " " " "	4.18	3.85	3.14	3.20	3.26	3.39	3.50
17.	Taxes on Income	29,382	25,567	13,247	15,677	17,610	26,091	39,685
18.	Balance for Return	186,285	198,376	194,451	212,475	231,844	301,139	422,761
19.	Rate of Return—%	3.61	3.41	2.94	2.98	3.03	3.12	3.20

[2044]

2044

[2045]

ALLOCATION OF SYSTEM NETWORK CAPITAL AND COST TO SERVE SIERRA PACIFIC POWER COMPANY
FORECAST AS OF 1947

	Total	Special Facilities	Balance System Network
Actual 1946 at Primary Substation Input			
Thousands Kwh			8,408,336
Kw Months			19,632,668
Capital	$363,515,388	$423,593	$363,091,795
50%			181,545,898
Amount per Kwh Mills			21.5912
Amount per Kw Month			$ 9.2471
Network Costs Excl. Return & Tax	$ 30,869,999	$ 10,524	$ 30,859,475
5.5% Return and Tax (7.3348%)			26,632,057
Total Network Cost			$ 57,491,532
40%			$ 22,996,613
Cost per Kw Month			$ 1.1713
60%			34,494,919
Mills per Kwh			4,1025
Network Costs for 1947 Forecast			
Estimate 10% increase in Network Cost Excluding Return & Tax			$ 3,085,948
Total network cost			$ 60,577,480
40%			$ 24,230,992
Cost per Kw Month			$ 1.2342
60%			
Mills per Kwh			4.3227

Special Facilities to Serve Sierra Pacific
Capital and Operating Expense
Actual 1946, 1947-1952
1956 and 1963 as Forecast in 1947

	1946	1946 Adjusted to include 4/0 Copper on Both Lines and 1947	1948	1949	1950-1952 1956 & 1963
Capital:					
To Primary Sub. Input	$423,593	$644,891	$644,891	$763,661	$1,119,970
Distribution	33,314	33,314	33,314	33,314	33,314
Total	456,907	678,205	678,205	796,975	1,153,284
Annual Costs:					
To Primary Sub. Input					
Depreciation	3,167	6,551	6,551	7,819	11,622
Maint. & Operation	4,371	7,926	7,926	16,854	43,638
Commercial	—	—	—	—	—
Ins., Inj. & Damages	617	617	617	697	938
Property Tax	1,419	2,637	2,637	3,253	5,099
A. & G. & Pensions	1,450	1,450	1,450	1,711	2,495
Credit for Line Use	—500	—500	—500	—500	—500
Total	10,524	18,681	18,681	29,834	63,292
Distribution:					
Depreciation	501	501	501	501	501
Maint. & Operation	333	333	333	333	333
Commercial	240	240	240	240	240
Ins., Inj. & Damages	36	36	36	36	36
Property Tax	170	170	170	170	170
A. & G. & Pensions	61	61	61	61	61
Total	1,341	1,341	1,341	1,341	1,341
Total Spec. Facilities:					
Depreciation	3,668	7,052	7,052	8,320	12,123
Maint. & Operation	4,704	8,259	8,259	17,187	43,971
Commercial	240	240	240	240	240
Ins., Inj. & Damages	653	653	653	733	974
Property Tax	1,589	2,807	2,807	3,423	5,269
A. & G. & Pensions	1,511	1,511	1,511	1,772	2,556
Credit for Line Use	—500	—500	—500	—500	—500
Total	11,865	20,022	20,022	31,175	64,633
Estimate Future 10% Increase Total Annual Costs		22,024	22,024	34,293	71,096

[2047]

RATE OF RETURN DERIVED FROM SERVICE TO SIERRA PACIFIC POWER COMPANY ACTUAL 1946 AND 1946 IF REVENUE ON F.P.C. 3 COMPARED WITH 1948 AS FORECAST IN 1947 REVENUE ON F.P.C. 2 AND F.P.C. 3

		1946	1948 as Forecast 1947
1.	Sales to Sierra Pacific Power Co., Mwh	56,720	91,097
2.	" " " " " " Kw Months	205,200	271,400
3.	Capital: Alloc. of Network, $/Kw Month	9.2471	9.2471
4.	" " " , Mills/Kwh	21.5912	21.5912
5.	Kw Month Amount	1,897,505	2,509,663
6.	Kwh Amount	1,224,653	1,966,894
7.	Special Facilities	678,205	678,205
8.	Total Capital to Serve Sierra	3,800,363	5,154,762
9.	Revenue: FPC #2 (In effect 1946 & 1947)	477,679	694,521
10.	" FPC #3 (Present)	438,222	638,092
11.	Annual Cost: Alloc. of Network, $/Kw Month	1.1713	1.2342
12.	" " " , Mills/Kwh	4.1025	4.3227
13.	Kw Month Amount	240,351	334,962
14.	Kwh Amount	232,694	393,785
15.	Special Facilities Excl. Return & Tax	20,022	22,024
16.	5.5% Return & Tax on Spec. Facil. (7.3348%)	49,745	49,745
17.	Total Costs Incl. Return & Tax on Income	542,812	800,516
18.	Amount for 5.5% Return & Tax (7.3348%)	278,749	378,091
	Rate in Effect (FPC #2)		
19.	Excess Cost over Revenue	65,133	105,995
20.	Amount Available for Return & Tax	213,616	272,096
21.	% " " " " "	5.62	5.28
22.	Taxes on Income	43,704	52,063
23.	Balance for Return	169,912	220,013
24.	Rate of Return—%	4.47	4.27
	Present Rate (FPC #3)		
25.	Excess Cost over Revenue	104,590	162,424
26.	Amount Available for Return & Tax	174,159	215,667
27.	% " " " " "	4.58	4.18
28.	Taxes on Income	27,743	29,382
29.	Balance for Return	146,416	186,285
30.	Rate of Return—%	3.85	3.61

* * * * *

[2049]

TREND OF COSTS

To show the marked increase in costs during the period 1946 to 1953, the following tables have been prepared.

Using 1946 as a base, these tables show that average wage rates are up 51.6%, average fuel costs per kilowatt-hour of sales are up 76.6%, ad valorem taxes per dollar of investment are up 24%, and income tax rates are up 34%.

These items represent major items of expense, and the increases shown are responsible in a large measure for the difference between costs of service in 1946 and present day costs.

[2050]

PACIFIC GAS AND ELECTRIC COMPANY
AVERAGE MONTHLY STRAIGHT TIME WAGE RATE TREND

Year	Dollars Per Month	% of 1946
1946	256.68	100.0
1947	277.92	108.3
1948	297.72	116.0
1949	312.52	121.8
1950	320.59	124.9
1951	346.70	135.1
1952	369.47	143.9
1953 1st 7 months actual	375.91	146.5
7 Mo. actual, 5 Mo. estimated (a)	380.30	148.2
December, estimated (a)	389.07	151.6

(a) Includes 3½% general wage increase effective September 1, 1953.

[2051]

PACIFIC GAS AND ELECTRIC COMPANY
ELECTRIC DEPARTMENT
MATERIAL PRICE TREND
FUEL OIL—BARGE DELIVERIES—STATION "A" SAN FRANCISCO

Year	Price Per Bbl. (a)	% of 1946
1946	1.30	100
1947	1.62	125
1948	2.22	171
1949	1.66	128
1950	1.23	95
1951	1.58	122
1952	1.63	125
1953	1.69(b)	130
1953 Jan. 1	1.625	125
May 17	1.725	133

(a) Prices are exclusive of sales tax and are time-weighted averages of all prices effective during year.

(b) Assumes current price of $1.725 will prevail for remainder of 1953.

[2052]

PACIFIC GAS AND ELECTRIC COMPANY
PRICE TREND
NATURAL GAS PURCHASED

Year	Average Price per Mcf (cents)	% of 1946
1946	10.851	100
1947	14.129	130
1948	15.415	142
1949	16.716	154
1950	15.905	147
1951	20.277	187
1952	19.980	184
1953 (Jan. to Sept.)	21.901	202

PACIFIC GAS AND ELECTRIC COMPANY
ELECTRIC DEPARTMENT
FUEL COST PER KWH OF FUEL PLANT OUTPUT AND PER KWH OF TOTAL INPUT
TO PRIMARY SUBSTATIONS FROM ALL SOURCES
YEARS 1946-1952

Year	Natural Gas Fuel	Other Fuel	Less Credit for Process Steam	Net Cost of Fuel	Net Fuel Plant Output (M Kwh)	Fuel Cost per Kwh of Net Fuel Plant Output (Mills)	Net Primary Substation Input (M Kwh)	Fuel Cost per Kwh of Net Primary Sub. Input (Mills)
1946	$ 1,256,077	$ 6,560,329	$(2,400,116)	$ 5,416,290	1,756,642	3.08	8,408,336	0.64
1947	4,133,232	12,322,536	(3,039,327)	13,416,441	3,715,140	3.61	9,438,098	1.42
1948	5,654,481	12,002,953	(3,410,119)	14,247,315	3,414,155	4.17	10,031,437	1.42
1949	5,527,493	16,560,287	(3,048,294)	19,039,486	5,092,324	3.74	11,193,691	1.70
1950	5,654,244	7,117,137	(2,517,825)	10,253,556	3,927,361	2.61	12,140,798	0.84
1951	8,491,921	10,643,639	(3,365,166)	15,770,394	5,033,859	3.13	13,799,866	1.14
1952	11,797,096	8,263,324	(3,410,346)	16,650,074	4,692,257	3.55	14,696,368	1.13

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[2053]

2053

[2054]

PACIFIC GAS AND ELECTRIC COMPANY
ELECTRIC DEPARTMENT
TREND OF FUEL COSTS PER KWH OF FUEL PLANT OUTPUT AND PER KWH OF TOTAL INPUT TO PRIMARY SUBSTATIONS FROM ALL SOURCES
YEARS 1946-1952

Year	Fuel Cost per KWH of Net Fuel Plant Output		Fuel Cost per KWH of Net Primary Substation Input	
	Cost in Mills	% of Year 1946	Cost in Mills	% of Year 1946
1946	3.08	100.0	0.64	100.0
1947	3.61	117.2	1.42	221.9
1948	4.17	135.4	1.42	221.9
1949	3.74	121.4	1.70	265.6
1950	2.61	84.7	0.84	131.3
1951	3.13	101.6	1.14	178.1
1952	3.55	115.3	1.13	176.6

[2055]

PACIFIC GAS AND ELECTRIC COMPANY
ELECTRIC DEPARTMENT
TRENDS OF INVESTMENT AND AD VALOREM TAXES

Year	Investment: Book Cost of Property Subject to Tax		Ad Valorem Taxes		Taxes in Percent of Investment	
	Amount (1,000's of Dollars)	% of 1946	Amount (1,000's of Dollars)	% of 1946	%	% of 1946
1946	656,464	100	10,386	100	1.582	100
1947	672,286	102	12,132	117	1.805	114
1948	749,026	114	14,222	137	1.899	120
1949	870,564	133	16,032	154	1.842	116
1950	966,178	147	18,740	180	1.940	123
1951	1,063,209	162	21,153	204	1.990	126
1952	1,164,253	176	22,628	218	1.960	124

[2056]

TREND OF STATE AND FEDERAL RATES
FOR TAXES BASED ON INCOME
1946-1953

Year	State Corporation Franchise Tax	Federal Income Tax		Composite State & Fed. Normal & Surtax	
		Normal	Surtax	Rate (a)	% of 1946
1946	3.4	24	14	40.10	100%
1947	3.4	24	14	40.10	100
1948	3.4	24	14	40.10	100
1949	4.0	24	14	40.48	101
1950	4.0	23	19	44.32	111
1951	4.0	28.75	22	52.72	131
1952	4.0	30	22	53.92	134
1953	4.0	30	22	53.92	134

(a) In determining these composite rates, no consideration was given to variations from year to year in the taxable income to which the various components of the composite rate apply.

Note: Revenue act provided for Federal excess profits tax in years 1950 to 1953, but Pacific Gas and Electric Company was not liable for such tax.

[2058]

RATES OF RETURN
SYSTEM NETWORK COSTS ALLOCATED ON
STRAIGHT KILOWATT-HOUR BASIS

Pages 49 to 52 show comparative rates of return resulting from allocation of system network costs on a straight kilowatt-hour basis. Results shown on these pages are

comparable with the results shown on pages 3 to 6 respectively of this exhibit in which allocations of system network costs have been made on a demand and energy basis.

By the straight kilowatt-hour allocation method the summary on page 49 shows that on the 1947 forecast basis a 4.33% rate of return might have been expected in 1948 but that only a 2.30% return was actually earned. For 1952 the rate of return under the proposed rate would have been 3.23% and still would have been below the forecast of 3.35%. Comparison of the 1947 forecast with the up-to-date forecast for the years 1956 and 1963 shows that the relation of actual experience to the 1947 forecast may be expected to be worse in 1956 than in 1952 and very slightly better in 1963 than in 1952.

The summary on Pages 50 and 51 shows the effect on the rate of return in 1952 of increases over the 1947 forecast in sales, capital, and costs, separately and in combination.

Increases in sales at a higher load factor under this method of allocation reduced the rate of return for 1952 by 0.43%.

Increased capital gave not only a greater rate base but increased depreciation ad valorem taxes, and insurance expense, all of which depressed the rate of return by 0.51%.

Increased operating expenses reduced the rate of return by 1.39%.

The combined effect of all of these increases (not additive) was to reduce the 1952 actual rate of return 2.12% below that of the forecast. The proposed rate increase would have restored only 2.0% to the rate of return.

The summary on Page 52 shows that in 1946 the rate of return from service to Sierra was 5.89% and that adop-

tion of the 1948 contract rate would still have permitted a 5.13% return in 1946. For the year 1948 on the forecast basis the prior rate would have yielded a return of 5.01% and the rate reduction then granted would have been expected to depress the rate of return by 0.68% to 4.33%.

[2059]

RATE OF RETURN DERIVED FROM SERVICE TO SIERRA PACIFIC POWER COMPANY

FORECASTS AS OF 1947 COMPARED WITH ACTUAL AND WITH FORECAST AS OF 1953

YEARS 1948 TO 1952, 1956 AND 1963

Columns (1) and (2) present a direct comparison in terms of rates of return between the 1947 forecast and the actual results of operation for the years 1948 to 1952. For the years 1956 and 1963 the comparison is between the 1947 forecast and a forecast as of the present time (1953).

Column (3) shows the rate of return under the proposed rate for 1952, 1956, and 1963 for comparison with the 1947 forecast.

	Percent Rate of Return		
	At Present Rate (FPC No. 3)		Adjusted to Proposed Rate (Supp. No. 1, FPC No. 3)
	Forecast as of 1947	Actual	Actual as Adjusted
	(1)	(2)	(3)
1948	4.33	2.30	
1949	3.99	1.29	
1950	3.42	1.93	
1951	3.39	1.45	
1952	3.35	1.23	3.23
	Forecast as of 1947	Forecast as of 1953	
1956	3.26	0.79	2.98
1963	3.12	1.12	3.22

[2060]

Comparison of Rates of Return for Year 1952 Derived from Service to Sierra Pacific Power Company On Various Assumptions

Line (1) of the following comparison repeats from the preceding page the actual rate of return earned for the year 1952 from service to Sierra Pacific Power Company under the present rate (FPC No. 3).

Sales to Sierra and capital and operating expense allocable to service to Sierra in that year all exceeded the estimates of the 1947 forecast. Lines (2a), (2b), and (2c) show the rates of return that would have been earned if each of these elements, separately, had been as forecast. Thus, using actual cost experience of 1952, but assuming sales at the level forecast in 1947, line (2a) shows that the rate of return would have been 1.66% instead of 1.23%. Similarly, using operating cost and sales as actually experienced, but assuming capital (and costs directly related to capital*) as forecast, line (2b) shows that the rate of return would have been 1.74% instead of 1.23%. Again, using sales and capital as actually experienced but assuming operating expense (exclusive of costs directly related to capital*) as in the 1947 forecast, line (2c) shows a rate of return of 2.62% instead of 1.23%.

Line (2d) shows that taking actual sales to Sierra for 1952, but assuming no increase in capital or operating expense over the 1947 forecast, the rate of return would have been 2.81% instead of 1.23%.

Line (2e) repeats from the preceding page the 1947 forecast rate of return for 1952, which would have been

* Depreciation annuity, ad valorem taxes and insurance, injuries and damages

earned if all factors had been as forecast, i.e. 3.35% instead of the actual 1.23%.

Line (3) gives the rate of return which would have actually been earned in 1952 if the requested rate increase had been in effect throughout that year. This figure of 3.23% also appears on the preceding page.

[2061]

COMPARISON OF RATES OF RETURN FOR YEAR 1952
DERIVED FROM SERVICE TO
SIERRA PACIFIC POWER COMPANY
OF VARIOUS ASSUMPTIONS

	% Rate of Return
(1) Rate of return actually earned	1.23
(2) Rate of return that would have been earned under the present rate (FPC No. 3)—	
(2a) If sales had not increased over estimate of 1947 forecast	1.66
(2b) If capital had not increased over estimate of 1947 forecast	1.74
(2c) If operating expense had not increased over estimate of 1947 forecast	2.62
(2d) If capital and operating expense had not increased over estimate of 1947 forecast	2.81
(2e) If all factors were as forecast in 1947	3.35
(3) Rate of return that would have been earned if the proposed rate (Supp. No. 1 to FPC No. 3) had been in effect	3.23

COMPARISON OF RATE SCHEDULES FPC No. 2 AND FPC No. 3
COST VERSUS REVENUE AND RATE OF RETURN DERIVED FROM
SERVICE TO SIERRA PACIFIC POWER COMPANY
YEARS 1946 AND 1948

Year 1946: Actual sales, capital and costs.
Year 1948: Sales, capital and costs as forecast in 1947.

Schedule FPC No. 2 is the rate which was effective from July 1, 1939 to December 31, 1947. Hence the first column of the following table shows actual results for 1946 and the third column shows forecast results for 1948 if no change had been made in the rate.

Schedule FPC No. 3 is the rate which became effective as of January 1, 1948 and which has been designated throughout this proceeding as the present rate. The second column of this table shows the effect of applying this rate to actual results of operation in 1946. The fourth column shows the forecast results for 1948 under this rate.

Comparison of columns 1 and 2 shows that the effect of the adoption of the new rate would have been a reduction of 0.76% in rate of return from 1946 service to Sierra.

Comparison of columns 3 and 4 shows that the forecast reduction in rate of return for 1948 would have been 0.68%.

	1946		1948	
	FPC No. 2	FPC No. 3	FPC No. 2	FPC No. 3
	(1)	(2)	(3)	(4)
Revenue	$ 477,679	$ 438,222	$ 694,521	$ 638,092
Cost of Serv. @ 5.5% Return	457,587	457,587	728,061	728,061
Excess of Revenue over Cost	20,092			
Excess of Cost over Revenue		19,365	33,540	89,969
Amount for Return	$ 184,124	$ 160,305	$ 230,947	$ 199,883
Rate Base	3,127,511	3,127,511	4,611,956	4,611,956
Rate of Return	5.89%	5.13%	5.01%	4.33%

EXHIBIT 36 (REVISED)

[2064]

COMPARISON OF RATES OF RETURN DERIVED FROM RESALE CUSTOMERS SUBMITTED IN RESPONSE TO QUESTION NO. 6 IN FEDERAL POWER COMMISSION ORDER, FOR REARGUMENT ISSUED SEPTEMBER 21, 1953 IN DOCKET NO. E-6482

The sixth question posed by the Federal Power Commission in its order issued September 21, 1953 in this proceeding reads as follows:

> (6) How has the rate of return derived under this contract (F.P.C. No. 3) since it was entered into compared with the rates of return derived under the other special contracts under which P.G.&E. sells electricity for resale?

The term "special contracts" presumably refers to the contracts with municipal resale customers of P.G.&E. However, to complete the comparison, a summary classification of all existing resale customers is given on pages 2 and 3, and rates of return have been calculated for a sufficient number to be representative of the whole.

Rates of return for each of the resale customers have been derived in the same manner as for Sierra Pacific Power Company on page 29 of Exhibit 35 (Revised) concurrently submitted. Units for allocation of system network capital and annual costs are from lines 3 and 4, and 11 and 12, respectively, of that page. These units are applied directly to the kilowatt months demand and kilowatt hour sales of each of the resale customers to obtain system network capital and expenses excluding return and income taxes allocable to each. To system network capital and costs, capital and annual costs on

special facilities beyond primary substation input were added to obtain the total capital and annual costs for each of the customers for the years 1948 to 1952 inclusive. Results for the 12 months ended in November[1] 1953 were developed in a similar manner on the basis of 1952 costs, no later cost figures being available. Actual sales and revenues for the period were used, however.

Revenue less the costs thus developed shows the amount available for return and income taxes, from which amount income taxes and balance for return on allocated capital were developed from graphs of return related to return and income taxes for each of the years of the study. The rates of return thus found are tabulated on page 4.

For comparison, rates of return have also been calculated using system network capital and costs allocated on a straight kilowatt hour basis in a manner paralleling that used in deriving the rates of return for Sierra presented on page 49 of Exhibit 35 (Revised). These results are tabulated on page 5.

Firm resale service to California Oregon Power Company was instituted on November 9, 1952 under Schedule F.P.C. No. 6. This schedule is substantially equivalent to the proposed increased rate to Sierra and is the only other firm resale service by Pacific subject to Federal Power Commission jurisdiction. Rates of return for the twelve months' period ended in November 1953 from service to California Oregon Power Company have, therefore, been included though no such service was rendered in prior years.

---

[1] The twelve months' period ended on different dates in November for the customers shown, depending on the applicable billing periods

[2065]

CLASSIFICATION OF RESALE CUSTOMERS

Municipalities and Cooperatives

Group A: Seven municipalities, one municipal utility district and one cooperative in this group were supplied with resale service under contracts at the P-31 rate (equivalent to F.P.C. No. 3, except for the standby charge in the latter) prior to 1950 and at the P-31 rate without the ratchet clause (yielding revenues about 1% less than P-31 for the group) subsequent to 1950. The dates of change from P-31 to P-31 without the ratchet clause varied but all occurred in 1950.[1]

The contract with Sacramento Municipal Utility District expires June 30, 1954, after which it has contracted to purchase all of its power requirements from the United States Bureau of Reclamation. The contract with the City of Alameda expires in 1956. All the rest of the contracts in this group expire in 1955.

All of the customers in Group A are listed in the tabulation except Biggs and Roseville, two small municipalities, which should not show results significantly different from those tabulated.

Group B: Healdsburg, Lompoc, and Ukiah are small municipalities served at rates somewhat higher than the customers in the above group. Because of the relative insignificance of the group no study has been made to show the rates of return for any city in the group.

Group C: The contracts with the City of Redding provided rates equal to those in Group A, less a 5% discount

[1] The City of Roseville was on Schedule P-6 until October 30, 1950.

prior to August 15, 1950 and less a 10% discount thereafter. The present contract expires in 1955.

Public Utility Corporations

Nine[2] Public Utlity corporations (excluding Sierra Pacific Power Company) are supplied with resale service (as distinguished from interchange arrangements). Eight of these have been served since November 9, 1952 under Schedule R. The ninth, California Oregon Power Company has been served since November 9, 1952 under Schedule F.P.C. No. 6. The latter rate and Schedule R are both substantially equivalent to the increased rate proposed for Sierra in this proceeding (Supplement No. 1 to Schedule F.P.C. No. 3).

[2066]

Three of the corporations now on Schedule R, including Coast Counties Gas and Electric Company, were served under Schedule P-31 prior to that time (equivalent to F.P.C. No. 3, except for standby charge, until April 15, 1950, and 6% higher until November 10, 1952).

The other five corporations now on Schedule R, including Indian Valley Light and Power Company, were served prior to that time under Schedule P-6 which was more favorable than Schedule P-31 where rural load was predominant.

The tabulation gives rates of return with respect to (1) California Oregon Power Company (12 months ended November 3, 1953 only) as the only firm service resale customer, other than Sierra, under a rate subject to F.P.C. jurisdiction; (2) Coast Counties Gas and Electric Company as the largest customer in this group, outside

[2] California Oregon Power Company received no firm resale service prior to November 9, 1952.

of Sierra, and (3) Indian Valley Light and Power Company, to show the result for a small customer.

Actual results under Schedule F.P.C. No. 3 for each period are given for Sierra, excluding for the 12 months ended November 30, 1953 amounts subject to refund in this proceeding.

[2067]

COMPARISON OF RATES OF RETURN
DERIVED FROM RESALE CUSTOMERS
SYSTEM NETWORK CAPITAL AND COSTS
ALLOCATED ON DEMAND AND ENERGY BASIS

	Kwh Sales 1952 Thousands	Load Factor 1952 Based on Kw Months	1948	1949	1950	1951	1952	12 Mos. Ended Nov. 1953
Municipalities and Cooperatives								
Group A								
Alameda	129,499	59.2	2.02	1.75	2.83	2.60	2.33	2.35
Gridley	4,774	56.5	3.82	3.13	4.06	3.76	3.49	3.54
Lodi	35,443	60.8	2.36	2.34	3.39	3.17	2.90	2.91
Palo Alto	49,231	53.3	1.69	1.62	2.91	2.81	2.61	2.65
Santa Clara	48,950	68.8	2.42	2.14	3.34	3.16	2.90	2.90
S.M.U.D.	664,371	61.3	0.77	0.75	2.49	2.25	1.98	1.97
Plumas-Sierra Cooperative	6,492	56.8	1.54	1.63	2.79	2.59	2.35	2.38
Group C								
Redding	54,881	55.3	1.10	1.06	1.84	1.74	1.57	1.84
Public Utility Corporations								
California Oregon Power Company	67,296**	53.3**						4.26
Coast Counties Gas & Electric Co.	279,515	64.6	1.64	1.38	3.36	3.17	3.05*	4.06
Indian Valley Light & Power Co.	7,554	38.2	2.14	2.05	3.42	2.99	2.94*	3.80
Sierra Pacific Power Company	211,347	59.8	1.58	.90	1.89	1.45	1.23	1.27

* Increased rates under Schedule R were in effect only from November 10, 1952.
** Sales for 12 months ended November 1953, which is the first full year of firm sales.

[2068]

Comparison of Rates of Return Derived from Resale Customers System Network Capital and Costs Allocated on Straight KWH Basis

	Kwh Sales 1952 Thousands	Load Factor 1952 Based on Kw Mos. %	Per Cent Rate of Return 1948	1949	1950	1951	1952	12 Mos. Ended Nov. 1953
Municipalities and Cooperatives								
Group A								
Alameda	129,499	59.2	2.43	2.10	3.04	2.57	2.37	2.43
Gridley	4,774	56.5	4.16	3.85	4.23	3.83	3.61	3.60
Lodi	35,443	60.8	2.26	2.23	3.37	3.06	2.80	2.87
Palo Alto	49,231	53.3	2.28	2.27	3.16	2.95	2.83	2.8[illegible]
Santa Clara	48,950	68.8	2.31	1.86	3.04	2.77	2.64	2.6[illegible]
Sacramento MUD	664,371	61.3	.58	.60	2.51	1.89	1.90	1.84
Plumas-Sierra Cooperative	6,492	56.8	1.97	2.04	3.17	2.77	2.52	2.52
Group C								
Redding	54,881	55.3	1.10	1.14	2.15	1.89	1.84	2.36
Public Utility Corporations								
California Oregon Power Company	67,296**	53.3**						4.59
Coast Counties Gas & Electric Co.	279,515	64.6	1.46	1.31	3.32	3.00	2.91*	3.83
Indian Valley Light & Pr. Co.	7,554	38.2	3.46	3.19	4.19	3.84	3.73*	4.82
Sierra Pacific Power Company	211,347	59.8	2.30	1.29	1.93	1.45	1.23	1.29

* Increased rates under Schedule R were in effect only from November 10, 1952.
** Sales for 12 months ended November 1953, which is the first full year of firm sales.

EXHIBIT 43

[2073]

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
Sacramento 10, California
P. O. Box 2511
Region 11

August 15, 1947

In reply refer to: PW-3

Pacific Gas and Electric Company,
245 Market Street,
San Francisco 6, California.

Attention: A. Emory Wishon,
Executive Vice-President

Gentlemen:

The Colorado River Commission of Nevada, a power procurement agency of the State of Nevada, has requested the Bureau of Reclamation to reserve a substantial increment of generating capacity at Shasta Power plant for supplying electricity to meet future load growth in northwestern Nevada.

It is our understanding that the Colorado River Commission of Nevada does not presently contemplate the construction of state-owned transmission and distribution facilities, but expects to conduct its marketing through the facilities of existing power distribution agencies.

In order that we may inform the Commission on feasible methods of delivering Shasta power to Nevada, we wish

to obtain an expression from your company as to your willingness to enter into contracts (or modifications of existing contracts) for supplying energy to Nevada distributors, on an exchange basis, for the account of the Colorado River Commission of Nevada. It is our present assumption that the Nevada distributors could accept delivery of such exchange energy at locations in California.

Should you wish to discuss this matter informally prior to stating a definite policy, our Regional Power Manager, Mr. Creim, will gladly meet with you at your convenience.

Very truly yours,

R. S. Calland,
Acting Regional Director.

EXHIBIT 44

[2074]

Pacific Gas and Electric Company
V. P. & E. E.

October 16, 1947

Central Valley
Proposed Service to Nevada

Mr. J. B. Black:

At our meeting yesterday you requested that certain additional results be worked out. This has been done and the results are shown on Sheet 5 of the attached five sheets. The others present data and results previously worked out and used in our discussions.

Sheet 1 is a revision of the sheet shown to you and used by you in these discussions. The revision is due to our finding errors in the work and affects, particularly, the

figure $526,558, formerly $533,405, used as the revenue on P-31 for the year ending 8/31/47; Also the figure $397,200, formerly $377,200, as the cost to C.V.P. for power at Shasta Substation computed on our present contract rate for the year ending 8/31/47.

The other three sheets present supporting detail and explanation.

B. B. BECKETT
BBB

BBB C
Cy: WGBE
JPC
NRS
LHA
WD
AEW

*10/17/47—Told Dreyer to go to Reno Oct 24 instead of Beckett & to get all of Beckett's calculations & check them & be ready for a meeting early next week. E

10/18/47—JAK to give Dreyer copy of his construction cost analysis. E

* These entries are handwritten on the original of this Exhibit as it appears in the Certified Transcript of the Record.

[2075]

Sheet 1

CENTRAL VALLEY PROJECT
SERVICE TO NEVADA
COMPARISON OF RATES AND COST
TO P. G. & E. CO. AND TO C. V. P.

	Year to 8-31-47 Actual	Year 1952 Est'd	Year 1960 Est'd
Load			
Energy, Kwh.	72,678	148,000	267,000
Max. Dem., Kw.	22,320	40,000	66,000
Sum of Monthly Kw.	240,780	416,000	688,000
Power Factor, Average, %	99.5	99.5	99.5
Load Factor, Annual, %	37.2	42.3	46.2
Load Factor, Avg. Monthly, %	41.3	48.7	53.2
Charge at Present Rate			
Revenue	$581,127	$1,076,622	$1,854,482
¢ per Kwh.	.800	.727	.695
On P-31 plus $30,000/Year			
Revenue	$526,558	$ 956,765	$1,576,365
¢ per Kwh.	.726	.646	.591
On C. V. P. Resale Rate			
Revenue	$398,800	$ 731,400	$1,252,000
¢ per Kwh.	.549	.494	.469

Cost to P. G. & E. Co.

At Shasta Sub. on present contract rate and P. G. & E. system average loss and diversity	$316,782	$ 597,600	$1,020,500
Transmission at P. G. & E. system average cost, $6.60/Kw.	147,312	264,000	435,600
Standby, present charge	30,000	30,000	30,000
Total	494,094	891,600	1,485,600
¢ per Kwh.	.680	.602	.556

Cost to C. V. P.

At Shasta Sub. on present contract rate, no diversity	$397,200	$ 765,000	$1,287,000
Transmission	290,300	538,000	479,000
Total	687,500	1,103,000	1,766,000
¢ per Kwh.	.947	.746	.662

B.B.B.
10/14/47

[2076]

-2-

CENTRAL VALLEY SERVICE TO NEVADA
TRANSMISSION COST, FOR 40,000 KW.

230 Kv. System:

Capital:

Shasta Sub. to Oroville, completed 1944	$ 933,000
Oroville to Elverta, partly completed	1,730,000
Elverta Switchyard, future construction	2,718,000
Total, 1940-46 prices	5,381,000
Revised for 1947 prices on future constr.	6,408,000

Annual Costs:

O. & M.	98,000
Replacement	72,000
Int. & Amort., 3%, 50 years	237,000
Total	407,000
Charge to Sierra Pac., 40/150	108,000

115 Kv. System:

Capital:

Elverta to Summit:

36 miles at $8,500	$ 306,000	
25 " at 14,500	362,000	
27 " (Drum to Summit)	459,000	
Switching and meters	79,000	$1,206,000

Keswick to Reno:

41 miles to Red Bluff at $8,500	349,000	
10 " at 8,500	85,000	
164 " at 14,500	2,378,000	
215	2,812,000	
Substations, switching & meters	400,000	$3,212,000
Total		$4,418,000

Annual Costs:

O. & M.	47,000
Replacement	38,000
Int. & Amort., 3%, 50 years	171,000
Total	256,000
Charge to Sierra Pac. Pr., 90%	230,000
Total charge to Sierra Pac.	338,000
Per Kwh. delivered, mills	2.28
Per Kw. Max. Dem.	$8.45

B.B.B.
10/9/47

[2077] Sheet 3

CENTRAL VALLEY PROJECT
PROPOSED SERVICES TO NEVADA

Cost to P.G.&E.

The method used in computing the cost to P.G.&E. of power delivered to Sierra at Summit, assuming this power to be purchased at Shasta Substation under our present Shasta contract, is the same as that developed for our study of 7/16/47 on the Denison Dam contract provisions applied to our system. The energy and power required at Shasta substation are arrived at by allowing our system average losses, 10.7% for energy and 13% (Est'd) for peak, and then for the required power capacity dividing by 1.45 (our system average diversity factor between primary substations) and finally adding 10% as a reserve margin. No special allowance is made for stand-by against failure of Shasta power, other than this 10% margin, since Shasta power, including that part supplied to Sierra, is assumed to remain "integrated" in our system and a margin of approximately 10% above load is all that we attempt to provide in our system dependable capacity.

Transmission cost is the P.G.&E. system actual 1946 O.&M. increased by 20%, plus local taxes, depreciation at the 6% sinking fund rate, 6% for return and 2.2% for income taxes on historical cost. This total annual cost divided by the sum of the non-simultaneous primary substation annual peak loads is $6.60, which is the unit then applied to the Sierra peak loads for the several years as shown. The capital includes pro rata of Common Utility Plant, Working Capital, Organization and Franchises; and the annual costs include pro rata of General Administration expense and other general items.

B.B.B.
10/14/47

[2078]

CENTRAL VALLEY PROJECT
PROPOSED SERVICE TO NEVADA

Cost to C.V.P.

The transmission system for which costs are shown on the following sheets would comprise two lines as follows:

1. A 115 Kv. line from Elverta to Summit, 88 miles, designed to deliver 40,000 Kw. at Summit, together with a prorated part of the single 230 Kv. line from Shasta Substation to Elverta and the proposed Elverta Substation.

2. A 115 Kv. line from Keswick power house to Reno, 215 miles, via Sommerville and Doyle.

The first line would have one circuit initially, but a second circuit (separate line) would be provided when the load exceeds 40,000 Kw., estimated 1953. The Keswick-Reno line would be for standby and not used except in emergencies, on account of excessive energy loss, poor regulation and unreliable service. It is assumed that Sierra would supply and operate the necessary synchronous condenser for this line.

The capital costs for the 230 Kv. line and Elverta substation are taken from the Central Valley appropriation bill justification for 1947-8, adjusted to 1947 prices as to that part not already constructed. The 115 Kv. line capital costs are estimated, roughly, by our Engineering Department. Annual O. & M. and replacement costs are taken from 1943 Bureau reports adjusted to present wages and prices. Interest and amortization are computed at 3%, 50 years, as in recent Bureau reports for power facilities.

Cost of power to C.V.P. at Shasta Substation is assumed to be determined by our Shasta contract. No special allowance is made for the cost of furnishing standby to Sierra for its own generators (4,000 Kw. in our Sierra contract), but in computing the power capacity required at Shasta Sub., a margin of 10% was added to the maximum demand plus loss. No allowance was made for diversity.

B.B.B.
10/14/47

Sheet 5

[2079]

CENTRAL VALLEY
SERVICE TO NEVADA

	Year to 8/31/47	Year 1952	Year 1960
If Sierra buys power from C.V.P. at Elverta:			
Power required at Elverta:			
Max. Annual Dem., Kw.	23,400	43,600	70,900
Energy, M.w.h.	75,100	157,500	281,000
Sum of Monthly Max., Kw-Mo.	252,000	450,000	732,000
Charge at C.V.P. rate	$ 415,530	$ 786,600	$1,326,200
Transmission Cost:			
Number of circuits required	1	1	2
Capital Cost	$1,206,000	$1,206,000	$2,412,000
Annual Cost, incl. 6% for return, 2.2% for income taxes, 1.5% local taxes, 1.0% Depree. (6% sinking fund), 1.3% O&M. and Gen., total 12.0%	144,720	144,720	289,440
Total at Summit, ex. standby	560,250	931,320	1,615,640

Standby charge $10/Kw. for power purchased from C.V.P. plus 4,000 Kw. of Sierra's own plant capacity	263,200	440,000	700,000
Total Cost, 6% return, 2.2% income tax	823,450	1,371,320	2,315,640
Ditto, 5% return and 1.2% inc. tax	799,330	1,347,200	2,267,400
Charge at present rate (for comparison)	581,127	1,076,622	1,854,482
If Sierra buys power from C.V.P. at Summit:			
Charge at C.V.P. rate	$ 398,800	$ 731,400	$1,252,000
Standby, as above	263,200	440,000	700,000
Total	662,000	1,171,400	1,952,000
¢ per Kwh.	.911	.792	.732

B.B.B.
10/15/47

EXHIBIT 45

(See Opposite)